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Vice-President Stevenson.
Mrs. Stevenson. Governor and Mrs. Sheakley.

[Frontispiece.

TEACHERS AND PUPILS, PRESBYTERIAN MISSION SCHOOL, SITKA, ALASKA.

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54TH CONGRESS, 1st Session. | SENATE. | DOCUMENT No. 111.

U.S. Office of Education

IN THE SENATE OF THE UNITED STATES.

REPORT

ON

INTRODUCTION OF DOMESTIC REINDEER INTO ALASKA,

WITH

MAPS AND ILLUSTRATIONS,

BY

SHELDON JACKSON,
GENERAL AGENT OF EDUCATION IN ALASKA.

1895.

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ACTION OF THE SENATE OF THE UNITED STATES.

IN THE SENATE OF THE UNITED STATES,
February 5, 1896.

Resolved, That the Secretary of the Interior be directed to transmit to the Senate the report of Dr. Sheldon Jackson upon "The introduction of domestic reindeer into the District of Alaska for 1895."

WM. R. COX, *Secretary.*

LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
Washington, February 7, 1896.

SIR: I am in receipt of Senate resolution of the 5th instant—

That the Secretary of the Interior be directed to transmit to the Senate the report of Dr. Sheldon Jackson upon "The introduction of domestic reindeer into the District of Alaska for 1895."

In response thereto I have the honor to transmit herewith a copy of the report indicated in the foregoing resolution.

Very respectfully,

HOKE SMITH, *Secretary.*

The PRESIDENT OF THE SENATE.

INTRODUCTION OF DOMESTIC REINDEER INTO ALASKA.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION, ALASKA DIVISION,
Washington, D. C., December 31, 1895.

SIR: When in the year 1890 I visited arctic Alaska for the purpose of establishing schools, I found the Eskimo population slowly dying off with starvation. For ages they and their fathers had secured a comfortable living from the products of the sea, principally the whale, the walrus, and the seal. The supplies of the sea had been supplemented by the fish and aquatic birds of their rivers and the caribou or wild reindeer that roamed in large herds over the inland tundra.

The supply of these in years past was abundant and furnished ample food for all the people. But fifty years ago American whalers, having largely exhausted the supply in other waters, found their way into the North Pacific Ocean. Then commenced for that section the slaughter and destruction of whales that went steadily forward at the rate of hundreds and thousands annually, until they were killed off or driven out of the Pacific Ocean. They were then followed into Bering Sea, and the slaughter went on. The whales took refuge among the ice fields of the Arctic Ocean, and thither the whalers followed. In this relentless hunt the remnant have been driven still farther into the inaccessible regions around the North Pole, and are no longer within reach of the natives.

As the great herds of buffalo that once roamed the Western prairies have been exterminated for their pelts, so the whales have been sacrificed for the fat that incased their bodies and the bone that hung in their mouths. With the destruction of the whale one large source of food supply for the natives has been cut off.

Another large supply was derived from the walrus, which once swarmed in great numbers in those northern seas. But commerce wanted more ivory, and the whalers turned their attention to the walrus, destroying thousands annually for the sake of their tusks. Where a few years ago they were so numerous that their bellowings were heard above the roar of the waves and grinding and crashing of the ice fields, last year I cruised for weeks seeing but few. The walrus, as a source of food supply, is already very scarce.

The sea lions, once so common in Bering Sea, are now becoming so few in number that it is with difficulty that the natives procure a sufficient number of skins to cover their boats, and the flesh of the walrus, on account of its rarity, has become a luxury.

In the past the natives, with tireless industry, caught and cured, for use in their long winters, great quantities of fish, but American canneries have already come to some of their streams, and will soon be found on all of them, both carrying the food out of the country and, by their wasteful methods, destroying the future supply. Five million cans of salmon annually shipped away from Alaska—and the business still in its infancy—means starvation to the native races in the near future.

With the advent of improved breech-loading firearms the wild reindeer are both being killed off and frightened away to the remote and more inaccessible regions of the interior, and another source of food supply is diminishing. Thus the support of the people is largely gone, and the process of slow starvation and extermination has commenced along the whole arctic coast of Alaska.

To establish schools among a starving people would be of little service; hence education, civilization, and humanity alike called for relief. The sea could not be restocked with whale as a stream can be restocked with fish. To feed the population at Government expense would pauperize and in the end as certainly destroy them. Some other method had to be devised. This was suggested by the wild nomad tribes on the Siberian side of Bering Straits. They had an unfailing food supply in their large herds of domestic reindeer. Why not introduce the domestic reindeer on the American side and thus provide a new and adequate food supply?

To do this will give the Eskimo as permanent a food supply as the cattle of the Western plains and sheep of New Mexico and Arizona do the inhabitants of those sections. It will do more than preserve life—it will preserve the self-respect of the people and advance them in the scale of civilization. It will change them from hunters to herders. It will also utilize the hundreds of thousands of square miles of moss-covered tundra of arctic and subarctic Alaska and make those now useless and barren wastes conducive to the wealth and prosperity of the United States.

A moderate computation, based upon the statistics of Lapland, where similar climatic and other conditions exist, shows northern and central Alaska capable of supporting over 9,000,000 head of reindeer.

To reclaim and make valuable vast areas of land otherwise worthless; to introduce large, permanent, and wealth-producing industries where none previously existed; to take a barbarian people on the verge of starvation and lift them up to a comfortable self-support and civilization is certainly a work of national importance.

Returning to Washington on November 12, 1890, I addressed to the Commissioner of Education a preliminary report of the season's work, emphasizing the destitute condition of the Alaskan Eskimo and recommending the introduction of the domestic reindeer of Siberia.

On the 5th of December following, this report was transmitted by you to the Secretary of the Interior for his information, and on the 15th

transmitted to the Senate by Hon. George Chandler, Acting Secretary of the Interior. On the following day it was referred by the Senate to the Committee on Education and Labor.

On the 19th of December Hon. Louis E. McComas, of Maryland, introduced into the House of Representatives a joint resolution (H. Res. No. 258) providing that the act of Congress approved March 2, 1887, "An act to establish agricultural experiment stations in connection with the colleges established in the several States," should be extended by the Secretary of the Interior over Alaska, with the expectation that the purchase, improvement, and management of domestic reindeer should be made a part of the industrial education of the proposed college.

The resolution was referred to the Committee on Education, and on the 9th of January, 1891, reported back to the House of Representatives for passage.

It was, however, so near the close of the short term of Congress that the resolution was not reached. When it became apparent that it would not be reached in the usual way, the Hon. Henry M. Teller, on the 26th of February, moved an amendment to the bill (H. R. No. 13462) making appropriations for sundry civil expenses of the Government for the year ending June 30, 1892, appropriating $15,000 for the introduction of domestic reindeer into Alaska, which was carried. The appropriation failed to receive the concurrence of the conference committee of the House of Representatives.

Upon the failure of the Fifty-first Congress to take action, and deprecating the delay of twelve months before another attempt could be made, I issued, with the approval of the Commissioner of Education, an appeal in the Mail and Express of New York City, the Boston Transcript, the Philadelphia Ledger, the Chicago Inter-Ocean, and the Washington Star, as well as in a number of the religious newspapers of the country, for contributions to this object. The response was prompt and generous; $2,146 were received.

As the season had arrived for the usual visit of inspection and supervision of the schools in Alaska, in addition to my regular work for the schools I was authorized to commence the work of introducing domestic reindeer into Alaska. The natives of Siberia who own the reindeer, knowing nothing of the use of money, an assortment of goods for the purpose of barter for the reindeer was procured from the funds so generously contributed by benevolent people.

The honorable Secretary of the Treasury issued instructions to Captain Healy to furnish me every possible facility for the purchase and transportation of reindeer from Siberia to Alaska. The honorable Secretary of State secured from the Russian Government instructions to their officers on the Siberian coast also to render what assistance they could, and on May 25, 1891, I again took passage on the revenue cutter *Bear*, Captain Healy in command, for the coast of Siberia.

The proposition to introduce domestic reindeer into Alaska had ex-

cited widespread and general interest. In the public discussions which arose with regard to the scheme, a sentiment was found in some circles that it was impracticable; that on account of the superstitions of the natives they would be unwilling to sell their stock alive; further, that the nature of the reindeer was such that he would not bear ship transportation, and also that, even if they could be purchased and safely transported, the native dogs on the Alaskan coast would destroy or the natives kill them for food. This feeling, which was held by many intelligent men, was asserted so strongly and positively that it was thought best the first season to make haste slowly, and instead of purchasing a large number of reindeer to possibly die on shipboard or perhaps to be destroyed by the Alaskan dogs (thus at the very outset prejudicing the scheme), it was deemed wiser and safer to buy only a few.

Therefore, in the time available from other educational duties during the season of 1891, I again carefully reviewed the ground and secured all possible additional information with regard to the reindeer, and, while delaying the actual establishment of a herd until another season, refuted the correctness of the objections that the natives will not sell and the deer will not bear transportation by actually buying and transporting them.

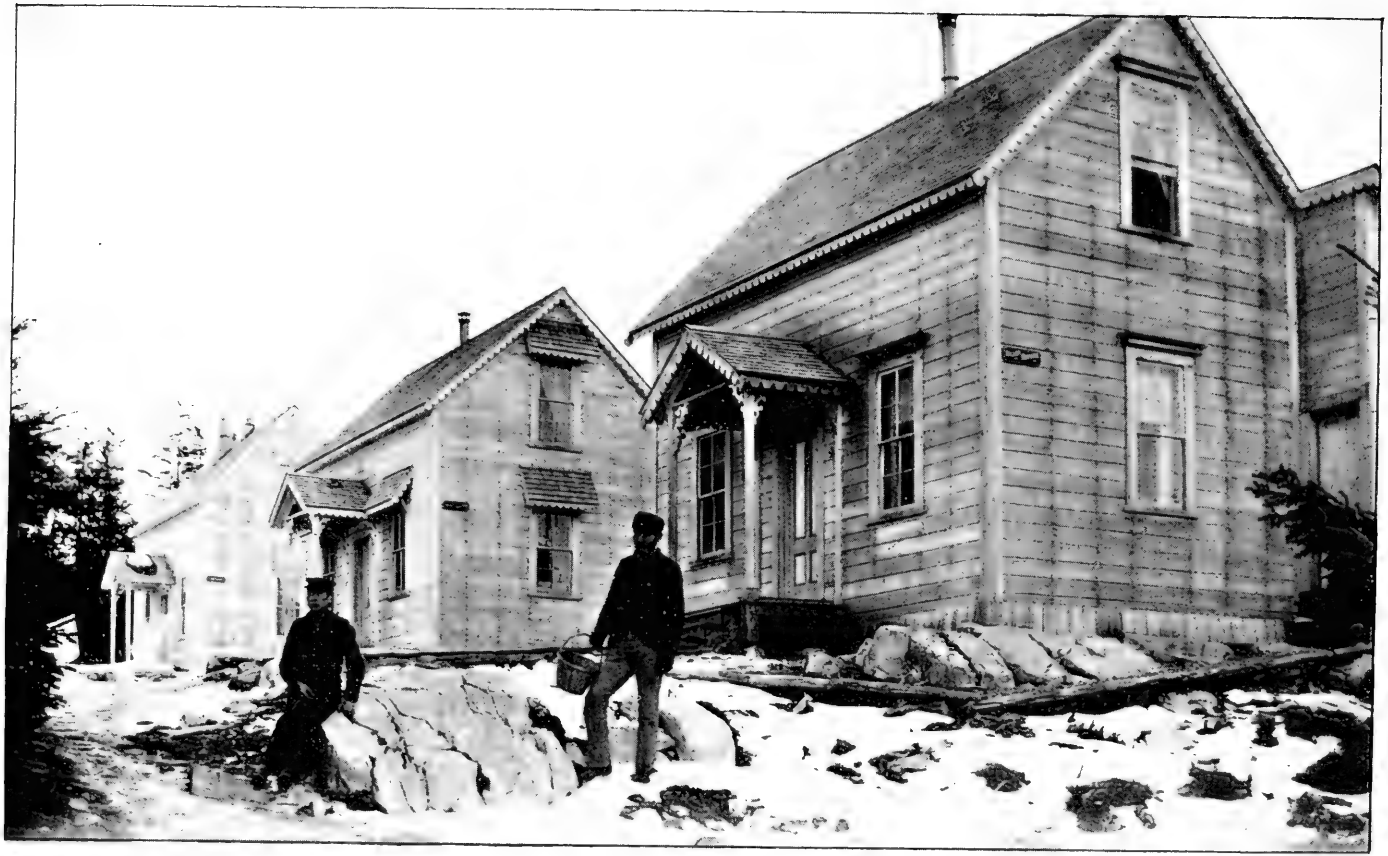
The work was so new and untried that many things could only be found out by actual experience.

First. The wild deer men of Siberia are a very superstitious people, and need to be approached with great wisdom and tact. If a man should sell us deer and the following winter an epidemic break out in his herd, or some calamity befall his family, the Shamans would make him believe that his misfortune was all due to the sale of the deer.

Second. The Siberian deer men are a nonprogressive people. They have lived for ages outside of the activities and progress of the world. As the fathers did, so continue to do their children. Now, they have never before been asked to sell their deer; it is a new thing to them, and they do not know what to make of it. They were suspicious of our designs. Another difficulty arises from the fact that they can not understand what we want with the reindeer. They have no knowledge of such a motive as doing good to others without pay.

As a rule, the men with the largest herds, who can best afford to sell, are inland and difficult to reach. Then business selfishness comes in. The introduction of the reindeer on the American side may to some extent injuriously affect their trade in deer skins. From time immemorial they have been accustomed to take their skins to Alaska and exchange them for oil. To establish herds in Alaska will, they fear, ruin this business.

Another difficulty experienced was the impossibility of securing a competent interpreter. A few of the natives of the Siberian coast have spent one or more seasons on a whaler, and thus picked up a very little English. And upon this class we have been dependent in the past.



MODEL COTTAGES, SITKA, ALASKA.

(These cottages were built and paid for by the graduates of the Presbyterian Industrial Training School, Sitka, and are occupied by their Thlinget owners.)

However, notwithstanding all these difficulties and delays, Captain Healy, with the *Bear*, coasted from 1,200 to 1,500 miles, calling at the various villages and holding conferences with the leading reindeer owners on the Siberian coast. Arrangements were made for the purchase of animals the following season. Then, to answer the question whether reindeer could be purchased and transported alive, I bought 16 head, kept them on shipboard for some three weeks, passing through a gale so severe that the ship had to "lie to," and finally landed them in good condition at Amaknak Island, in the harbor of Unalaska.

Upon my return to Washington City in the fall of 1891 the question was again urged upon the attention of Congress, and on the 17th of December, 1891, Hon. H. M. Teller introduced a bill (S. 1109) appropriating $15,000, to be expended under the direction of the Secretary of the Interior, for the purpose of introducing and maintaining in the Territory of Alaska reindeer for domestic purposes. This bill was referred to the Committee on Agriculture and Forestry, Hon. Algernon S. Paddock, chairman. The committee took favorable action, and the bill was passed by the Senate on May 23, 1892. On the following day it was reported to the House of Representatives and referred to the Committee on Appropriations. A similar bill (H. R. 7764) was introduced into the House of Representatives by Hon. A. C. Durborow and referred to the Committee on Agriculture.

On April 15 Hon. S. B. Alexander, of North Carolina, reported the bill to the House of Representatives with the approval of the Committee on Agriculture. The bill was placed on the calendar, but failed to pass the House.

On the 2d of May, 1892, I started for my third summer's work on the coast of Siberia and Arctic Alaska in the United States revenue cutter *Bear*, Capt. M. A. Healy, commanding, and, upon the 29th of June following, selected in the northeast corner of Port Clarence (the nearest good harbor to Bering Straits on the American side) a suitable location for the establishment of an industrial school, the principal industry of which is the management and propagation of domestic reindeer. The institution is named the Teller Reindeer Station.

During the summer of 1892 I made five visits to Siberia, purchasing and transporting to Port Clarence 171 head of reindeer. I also superintended the erection of a large building for the officers and residence of the superintendent of the station, Mr. Miner W. Bruce, of Nebraska.

Returning to Washington in the early winter, agitation was at once commenced before Congress, resulting in an appropriation by the Fifty-second Congress, second session (March 3, 1893), of "$6,000, to be expended under the direction of the Secretary of the Interior, for the purpose of introducing and maintaining in the Territory of Alaska reindeer for domestic purposes." The management of this fund was wisely laid upon the Commissioner of Education and was made a part of the school system of Alaska.

During the spring of 1893, 79 fawns were born to the herd at the Teller Reindeer Station, and during the summer 127 deer were purchased in Siberia and added to the Alaska herd.

At the expiration of his year's service Mr. Bruce resigned, and Mr. W. T. Lopp, of Indiana, was appointed superintendent.

During April, May, and June, 1894, 186 fawns were born to the herd, of which 41 were lost by being frozen or deserted by their mothers. During the summer I purchased in Siberia 120 head, which were added to the herd.

Siberian herders were employed at the beginning of the enterprise, not because they were considered the best, but because they were near by and were the only ones that could be had at the time. It was realized from the first that if the Alaskan Eskimo were to be taught the breeding and care of the reindeer, it was important that they should have the benefit of the most intelligent instructors and of the best methods that were in use. By universal consent it is admitted that the Lapps of northern Europe, because of their superior intelligence (nearly all of them being able to read and write and some of them being acquainted with several languages), are much superior to the Samoyedes deer men of northern Europe and Asia and the barbarous deer men of northeastern Siberia. Intelligence applied to the raising of reindeer, just as to any other industry, produces the best results.

Therefore, when in 1893 it was ascertained that the herd at Port Clarence had safely passed its first winter (thus assuring its permanence), I at once set about securing herders from Lapland. There being no public funds available to meet the expense of sending an agent to Norway in order to secure skilled Lapp herders, I had recourse again to the private benefactions of friends of the enterprise, and $1,000 was contributed.

Mr. William A. Kjellmann, of Madison, Wis., was selected as superintendent of the Teller Reindeer Station and sent to Lapland for herders. He sailed from New York City February 21, and landed upon his return May 12, 1894, having with him seven men, their wives and children, making sixteen souls in all. This was the first colony of Lapps ever brought to the United States. They reached the Teller Reindeer Station safely on July 29, having traveled over 12,500 miles. Upon reaching the station Mr. Kjellmann took charge, relieving Mr. W. T. Lopp, who desired to return to the mission work at Cape Prince of Wales.

In 1894 the Fifty-third Congress, second session, increased the reindeer appropriation to $7,500, and the same amount was appropriated in the spring of 1895, at the third session of the same Congress.

1895.

The accompanying report of Mr. William A. Kjellmann (Appendix B) upon the conduct of the Teller Reindeer Station and reindeer herd is so full and satisfactory that I will not even attempt to summarize it, but rather urge its careful reading.

LOADING REINDEER ON SHIPBOARD

Published by courtesy of "Our Animal Friends."

Owing to the serious illness of his wife, and her need of the services of a physician, that could not be had at the station, Mr. Kjellmann resigned on the 20th of July and returned to the States. The same day Mr. Jens C. Widstead, of Wisconsin, the assistant superintendent, was made superintendent, and Mr. Thorvaald Kjellmann, of Norway, was appointed his assistant.

Having spent five consecutive seasons in arctic and subarctic Alaska and Siberia establishing and supervising schools and the introduction of reindeer, I felt the need of giving a season to the work in southeast Alaska. To accomplish this Mr. William Hamilton, my assistant, made the arctic cruise this season. The itinerary for 1895 is therefore written by him and is incorporated in an appendix (Appendix A).

The experience of the past year has demonstrated the wisdom of procuring Lapps for herders. Their greater intelligence, skill, and gentleness in handling the deer, and the introduction of their improved methods of treatment, have greatly promoted the welfare of the herd. In 1894, 41 fawns out of the 186 born were lost under the supervision of the Siberian herders. This spring under the care of the Lapps but 22 fawns were lost of 298 born at the three stations, and 7 of these were from the 75 born at Cape Prince of Wales, where no Lapp was present, thus reducing the percentage of loss among the calves the past spring from 22 per cent in the previous year to about 6 per cent for the present year. This great saving is due to the greater skill of the Lapps, and would alone pay the extra expense of procuring them as herders. It has also been found that there is a hearty agreement in the work between the Lapps and the Eskimo.

Last fall a commencement was made in the distribution from the central herd at the Teller Station. In August, 1894, 119 head of deer were given to Mr. W. T. Lopp, in charge of the mission of the American Missionary Association at Cape Prince of Wales. This spring the herd was increased by the birth of 75 fawns (Appendix C).

Instructions were left in fall of 1895 to furnish similar herds to the Swedish Evangelical mission at the head of Norton Sound and to the Episcopalians and Roman Catholics on the Yukon River.

The Eskimo have been so little accustomed to assistance from the whites that they have been somewhat skeptical concerning their being permitted to ultimately own the reindeer. As evidence of good faith, in February last a herd of 115 head was entrusted to three or four of the most experienced native apprentices, with an agreement that they were to own the natural increase. This spring during fawning season a Lapp was sent to their assistance, and they lost only 2 fawns out of the 79 born.

The experience of the past four years has demonstrated the fact that the present system of procuring reindeer is too slow, and will take many years to accomplish the purpose of the Government. To expedite matters I would respectfully suggest the propriety of placing, with

the consent of the Russian Government, a purchasing station somewhere on the Siberian coast, to remain through the year (Appendix F). If successful such a station ought to gather together 2,000 or 3,000 head and have them ready for transportation during the summer. Another plan, and a more feasible one, will be to contract with responsible parties for the purchasing and delivering of so many head of reindeer annually at certain designated points in Alaska. This latter plan will relieve the office of much anxiety.

THE POSSIBILITIES OF THE FUTURE.

There are in northern and central Alaska, at a moderate estimate, 400,000 square miles of territory that are unadapted to agriculture or the grazing of cattle, and that region is without an adequate food supply for the Eskimo inhabitants or the white miners and others who are now penetrating it in search of gold or trade. But that whole region is supplied with a long, fibrous white moss (*Cladonia rangiferina*), the natural food of the reindeer. This is capable of becoming food and clothing for men only by its transformation into reindeer meat and furs.

The best results in the raising of reindeer, and the most complete statistics, are found in Norway and Sweden. Taking those countries as a basis, we find that the northern provinces known as Lapland contain an area of 14,000 square miles, in which are 322,568 head of reindeer. This gives an average of 23 reindeer to the square mile.

Applying this ratio to the 400,000 square miles of arctic and subarctic Alaska (and there is no known reason in the general character of the country why we should not), we have as a result that Alaska is capable of sustaining 9,200,000 head of reindeer, which, at the valuation of $9 each (the price in Sweden), will be worth $83,000,000.

In Lapland there is an average of 32 head of reindeer to each person among the reindeer Lapps. Applying the same average to Alaska, the 9,200,000 head of reindeer will support a population of 287,500, living like the Lapps of Lapland.

EFFECT UPON ALASKA.

The stocking of Alaska with reindeer means—

First. The opening up of the vast and almost inaccessible region of northern and central Alaska to white settlers and civilization.

The original purpose in 1890 to introduce reindeer into Alaska was inspired by a desire to provide a new and more permanent food supply for the half-famishing Eskimo.

Since then the discovery of large and valuable gold deposits upon the streams of arctic and subarctic Alaska has made the introduction of reindeer a necessity for the white man as well as the Eskimo. Previous to the discovery of gold there was nothing to attract the white settler to that desolate region, but with the knowledge of valuable gold deposits thousands will there make their homes, and towns and villages are already springing into existence.

THLINGET HOUSE. INTERIOR CARVINGS AND CEREMONIAL GARMENTS.
Photograph by Winter & Pond, Juneau, Alaska. (Copyright.)

But that vast region, with its perpetual frozen subsoil, is without agricultural resources. Groceries, breadstuffs, etc., must be procured from the outside. Steamers upon the Yukon can bring food to the mouths of the gold-bearing streams, but the mines are often many miles up these unnavigable streams. Already great difficulty is experienced in securing sufficient food by dog-train transportation and the packing of the natives. The miners need reindeer transportation.

Again, the development of the mines and the growth of settlements upon streams hundreds of miles apart necessitates some method of speedy travel. A dog team on a long journey will make on an average from 15 to 25 miles a day, and in some sections can not make the trip at all, because they can not carry with them a sufficient supply of food for the dogs, and can procure none in the country through which they travel. To facilitate and render possible frequent and speedy communication between these isolated settlements and growing centers of American civilization, where the ordinary roads of the States have no existence and can not be maintained except at an enormous expense, reindeer teams that require no beaten roads, and that at the close of a day's work can be turned loose to forage for themselves, are essential. The introduction of reindeer into Alaska makes possible the development of the mines and the support of a million miners.

Second. The opening up of a vast commercial industry. Lapland, with 400,000 reindeer, supplies the grocery stores of northern Europe with smoked reindeer hams, 10 cents per pound; smoked tongues, at 10 cents each; dried hides, at $1.25 to $1.75 each; tanned hides, $2 to $3 each, and 23,000 carcasses to the butcher shops, in addition to what is consumed by the Lapps themselves.

Fresh reindeer meat is considered a great delicacy. Russia exports it frozen, in carloads, to Germany. The Norwegian Preserving Company use large quantities of it for canning.

The tanned skins (soft and with a beautiful yellow color) have a ready sale for military pantaloons, gloves, bookbinding, covering of chairs and sofas, bed pillows, etc.

The hair is in great demand for the filling of life-saving apparatus (buoys, etc.), as it possesses a wonderful degree of buoyancy. The best existing glue is made of reindeer horns.

On the same basis Alaska, with its capacity for 9,200,000 head of reindeer, can supply the markets of America with 500,000 carcasses of venison annually, together with tons of delicious hams and tongues, and the finest of leather.

Surely the creation of an industry worth from $83,000,000 to $100,000,000, where none now exists, is worth the attention of the American people.

Third. The perpetuation, multiplication, and civilization of the Eskimos of that region. The Eskimos are a hardy and docile race. Their children learn readily in the schools, and there is no reason why they

should not be made an important factor in the development of that land. The density of population in any section being largely dependent upon the quantity of the food supply, the increase of food supply will naturally increase the number of hardy Eskimo.

For the breeding of the reindeer and the instruction of the native people in this industry, it is desirable that there should be a migration to that country of skilled herders and their families. The inviting of this class of European settlers will not crowd out the native Eskimos, but will greatly assist them in their efforts to adjust themselves to the raising of reindeer. Lapp families, with their greater intelligence, skill, and gentleness in handling reindeer, and their improved methods of treatment, wisely distributed among the Eskimos, will be an object lesson to stimulate, encourage, and instruct them.

To awaken an interest in Lapland and open the way for securing a larger number of Lapp herders, I would suggest the publication for distribution in Lapland of a small pamphlet in the Norwegian language upon the advantages of raising reindeer in Alaska.

I am in receipt of many applications for the reindeer report that can not be supplied, because of the limited edition now published. It is important that the rising public sentiment favorable to the introduction of domestic reindeer into Alaska should be fostered and quickened by the wide dissemination of the information contained in these annual reports. Judging from past experience, an edition of 100,000 copies would be quickly applied for and taken.

REINDEER FUND, 1894–95.

Received from Congress		$7,500.00
Disbursements:		
Supplies and general expenses of station, Port Clarence	$3,811.83	
Trade goods used in purchasing deer	1,767.26	
Extra coal used by the *Bear* in transporting deer	1,081.50	
Maps used in report	150.00	
Salaries of employees at station	683.80	
Total		7,494.39
Balance		5.61

I desire to acknowledge my indebtedness to Mr. John P. Haines, president of the American Society for the Prevention of Cruelty to Animals, for illustrations of driving and loading reindeer, and to Messrs. William Hamilton, Tappan Adney, John M. Justice, Francis Barnum, Winter & Pond, and to the Woman's American Baptist Home Missionary Society for photographs.

Thanking you for your deep interest and hearty cooperation in the work, I remain, with great respect,

Your obedient servant,

SHELDON JACKSON,

United States General Agent of Education in Alaska.

Hon. W. T. HARRIS, LL. D.,

Commissioner of Education, Washington, D. C.

Rear of cooper shop. Parsonage. Hospital.

A BIT OF THE PRESBYTERIAN MISSION, SITKA, ALASKA.

APPENDIXES.

NATIVE THLINGET FAMILY, JUNEAU, ALASKA.

APPENDIX A.

THE ITINERARY FOR 1895.

By WILLIAM HAMILTON, Assistant Agent of Education.

BUREAU OF EDUCATION, ALASKA DIVISION,
Washington, D. C., December 31, 1895.

DEAR SIR: In accordance with your instructions I left Washington on April 15, arriving at Tacoma six days later. Here I took passage for Sitka on the Pacific Coast Steamship Company's vessel *City of Topeka*. The low rates to Alaska during the present season, the alleged rapid development of the gold mines in the Yukon region, and the unusually hard times on the Pacific Coast are greatly encouraging immigration to Alaska. The *City of Topeka* was crowded from stem to stern with all sorts and conditions of men; every berth was occupied, and at night the tables in the dining saloon were covered with long rows of slumbering humanity.

Soon after crossing the line between British Columbia and Alaska the steamer touched at Metlakahtla, the home of Mr. Duncan's colony of Christianized Timpseans. There are about 100 neat frame houses in the village, a large church and schoolhouse, the boys and the girls' boarding home, Mr. Duncan's residence and office, the cannery, sawmill, and the store. The church is complete with belfry, spire, vestibule, gallery, and pulpit carved by hand, all native handiwork. The salmon cannery ships about 8,000 cases each year, and the sawmill supplies all the lumber needed. Sidewalks in excellent condition, 10 feet wide, extend along the principal street of the village. A conspicuous object is a platform built on a huge cedar stump, where the native band plays on steamer days. As the steamer arrived late in the evening and left at 4 o'clock the next morning, I regret that I did not see the school in session.

The next place of interest at which the steamer stopped was Fort Wrangell. In the days when the Cassiar gold mines at the head of the Stikine River were in their glory, and when the barracks were occupied by United States troops, a tide of motley life swept through the long street which extends along the water front from the fort to the chief's house. In 1877 the Government withdrew its troops from all posts in Alaska, the mining regions of the Stikine have been abandoned, and the only indication of the industry of civilization is the frequent puffs of steam issuing from the large sawmill.

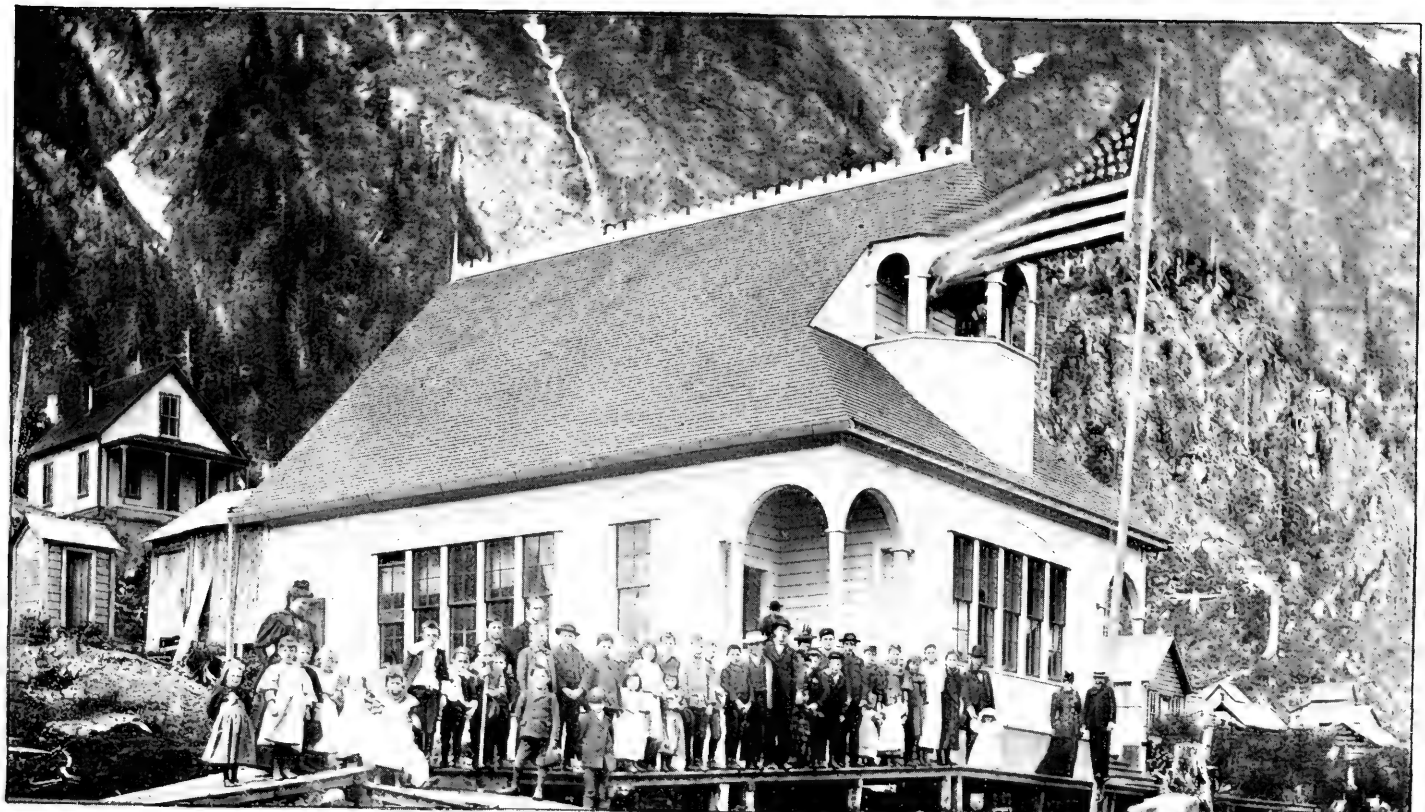
Mr. William A. Kelly, the local superintendent of schools for the Sitka district, lives in this village, and the public school for native children, held in the building which once was the hospital of the barracks, is in a very satisfactory condition under the care of Miss A. R. Kelsey.

On April 28 we found ourselves at the town of Juneau, which nestles at the base of a towering mountain. It is the largest town in the Territory and has a population of about 2,000, which number is largely increased when the miners from the neighboring regions winter there and also in the spring when newcomers tarry to purchase outfits and supplies before going into the interior. Juneau is the commercial metropolis of Alaska, and there is considerable rivalry between it and Sitka, the historic capital of the Territory; it has a court-house, jail, hotels, and lodging houses, two Government schools—one for white and the other for native children—a Presbyterian mission home and two churches (white and native), Russo-Greek church, also a Roman Catholic church, school, and hospital, opera house, bank, two weekly newspapers, fire brigade, and electric light and telephone plants.

Since my last visit to Juneau, in 1892, a new schoolhouse for natives has been built and the schoolhouse for white children has been thoroughly renovated, and both buildings compare very favorably with schoolhouses in places with the same population as Juneau anywhere in the United States. Mr. E. Keller has charge of the school for white children and Miss S. A. Saxman of the native school.

On the opposite side of Gastineau Channel, 2 miles from Juneau, is the town of Douglas, where is located the well-known Treadwell gold mine. Over $800,000 have been spent upon this plant since 1881. Its stamping mill, where the gold-bearing quartz is pulverized, contains 240 stamps, and is the largest mill of its kind in the world. The gold is shipped to the mint at San Francisco in the form of bricks worth several thousand dollars each. During the year ending May 31, 1894, 240,000 tons of ore were treated, yielding $768,000, or $3.20 per ton. In the village are two public schools. The one for white children is taught by Mr. L. A. Jones and the school for native children is under the care of Miss F. J. Work. The majority of the children in the school for natives are inmates of the home maintained here by the Kansas Yearly Meeting of Friends.

From Douglas the vessel steamed up Lynn Canal to Dyea at the head of the Chilkoot Inlet. This was the first time that the *Topeka* had ever been to the head of the inlet, and she felt her way along very cautiously. After careful sounding we anchored at about 6.30 p. m. Around us were magnificent snow-capped mountains, and just opposite a noisy waterfall leaped headlong down the face of the cliff. The pilot said that he would use it as a landmark for anchorage in the future. Men who enter the mining regions of the Yukon from the headwaters of the river take the trail which leaves tidewater at the head of this



JUNEAU, ALASKA, PUBLIC SCHOOL.
Photograph by Winter & Pond. (Copyright.)

inlet. We had on board 14 horses, which were to be used in carrying supplies over the mountain pass. These animals were now brought up from below. As the water shoals very rapidly toward the head of the bay, the *Topeka* had anchored a couple of miles from shore, and the horses had a long distance to swim. By this time it was dark and the struggles of the animals churned the chilly waters into displays of phosphorescent light.

On May 3 we touched at Killisnoo. A public school was maintained here for a number of years. In February, 1893, the schoolhouse was destroyed by fire, and the Bureau of Education has not been able to rebuild it, owing to heavy reductions in the Congressional appropriation for education in Alaska. Most of the children in the village attend the school of the Russo-Greek Church.

The Alaskan Oil and Guano Company, which is engaged in packing herring and manufacturing oil and fertilizer, has its works at this place. The annual product of their factory is 1,000 barrels of salted herring, about 400,000 gallons of herring oil, and 1,000 tons of fertilizer (composed of the refuse of the fish dried and pulverized, for which a market is found in California and in the Sandwich Islands, where it enriches the soil of the sugar plantations). In making the barrels Alaskan timber is used exclusively.

On May 1 the *Topeka* threaded its way into the beautiful island-studded harbor of Sitka, the seat of government of the Territory. Shielded on the one side by a majestic range of snow-capped mountains, and on the other protected from the swell of the Pacific by numerous thickly wooded islands, the town lies clustered along the curving sweep of the beach. As we face the town, a prominent feature in the foreground is the hill upon which Baranof Castle stood before the flames destroyed it in 1894. Extending along the beach to the right of Castle Hill is the section of the town inhabited by the white people. Above the dark roofs appear the green dome and Byzantine spire of the Greek Church. On the extreme right, near Indian River, is the group of buildings of the Presbyterian Industrial School. To the left of Castle Hill is the native village, consisting of neat frame houses, some of them with pretentious bay windows.

In 1890 Sitka had a population of 1,188, composed of 289 whites, 859 natives, and 31 Chinese. It has two public schools, a school and orphanage maintained by the Russian Government, and the large and successful Presbyterian Industrial School, with its boarding houses, hospitals, blacksmith shop, carpenter shop, shoemaking shop, paint shop, bakery, and steam laundry.

The few hours in Sitka were busily spent in inspecting the public schools (Miss Patton and Mrs. Knapp, teachers) and in visiting the schoolroom and industrial shops at the Presbyterian mission.

On May 1 I took passage on the mail steamer *Dora* for Unalaska, 1,250 miles west of Sitka, on one of the Aleutian Islands of the same

name. This mail route is in operation from the 1st of April until the 31st of October of each year. During the winter months Sitka is the limit of mail communication. Threading her way westward among the green islets the trim little *Dora* soon left the smooth, landlocked waters and encountered the unchecked sweep of the Pacific Ocean. From Sitka westward the character of the scenery changes. The narrow water-lanes hemmed in by the thickly wooded islands of the Alexander Archipelago give place to the untrammeled ocean beating against the bases of the barren cliffs and mountain ranges of "continental Alaska."

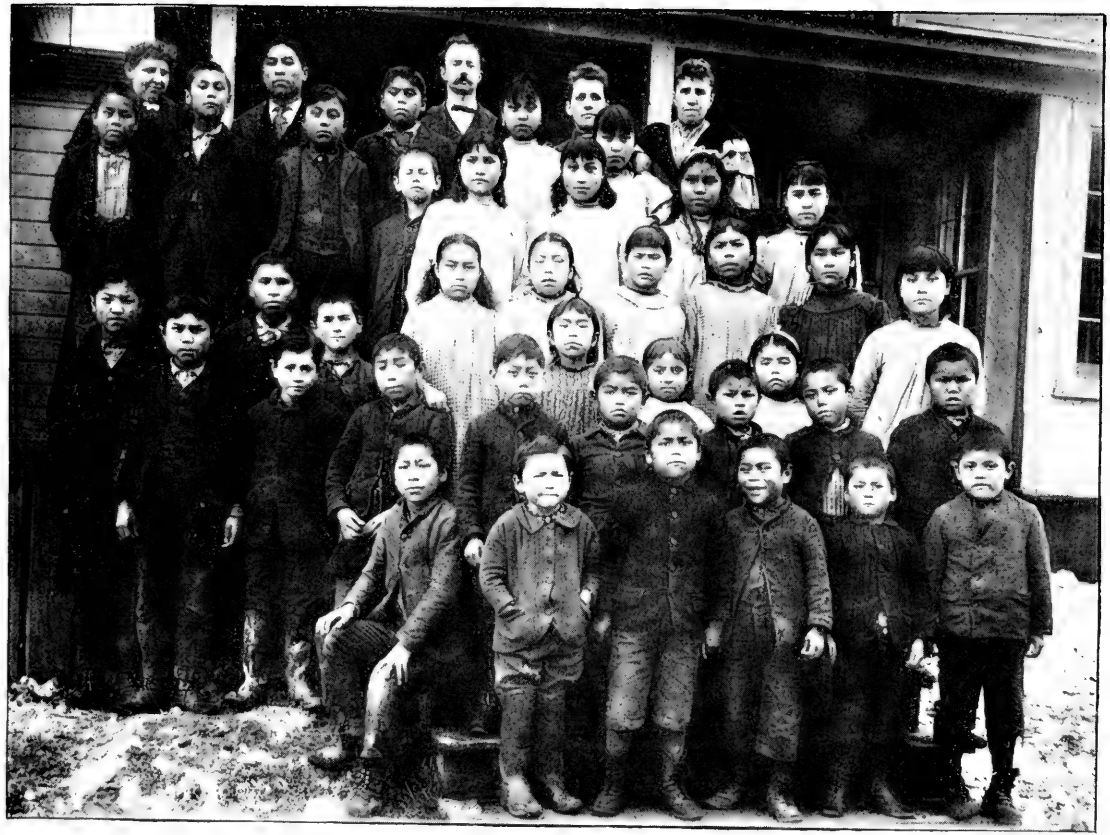
The morning of May 3 found us in Yakutat Bay. Here, near the base of Mount St. Elias, is a mission station of the Swedish Evangelical Church, with the Rev. and Mrs. Albin Johnson, Rev. K. J. Hendrickson, and Miss Selma Peterson as teachers. Mrs. Johnson came from Jankaping, Sweden, making a journey of 9,000 miles to join Mr. Johnson. Landing through the surf, we picked our way along the beach to the mission buildings. In the winter of 1892–93 one of the large and substantial boarding houses was burned. The undaunted missionaries commenced rebuilding it, and at the time of our visit it was nearly completed. The other building is a model of neatness, and there is an air of unassuming sincerity and thoroughness about the whole place.

In 1880 gold was discovered in the black sand of the beaches surrounding Yakutat Bay, and from that time until 1888, when a tidal wave washed most of the sand away, numerous mining camps dotted its shores. The black sand is accumulating once more, and prospectors have also returned. It is said that good coal has been found about 2 miles inland, but as Yakutat Bay is only a slight indentation of the coast into which the unbroken force of the North Pacific sweeps, loading ships with coal in that bay would be an undertaking of great difficulty.

The Yakutats are the northernmost branch of the Thlinget race, which inhabits southeast Alaska. Like the rest of the Thlingets, and also the Aleuts, they are expert basket weavers; in some of the houses we saw magnificent robes made of down from the breast of the eagle.

During the afternoon the clouds lifted, revealing the St. Elias Alps, and during the remaining hours of daylight we skirted the 60-mile front of the Malaspina glacier, with the sea dashing against its ice cliffs. The unbroken sweep of mountain scenery from the St. Elias range to the Aleutian chain is unsurpassed in gloomy grandeur. At the little trading post of Kayak we took on board a man who had just spent seven months as keeper of a fox ranch on one of the neighboring islands. For that length of time he had not seen a human face, his sole company being the foxes.

On evening of May 4 we entered the land-locked harbor of Nuchek, or Port Etches, at the entrance of Prince William Sound. At Snug



PRESBYTERIAN MISSION TEACHERS AND PUPILS, JUNEAU, ALASKA.

Photograph by Winter & Pond. (Copyright.)

Corner Bay in this sound Captain Cook repaired his ships in 1778, and here in 1783 Baranoff built the ships in which he made his first expedition to Sitka. A more sheltered harbor could hardly be imagined. In 1892 the Victoria sealing fleet rendezvoused at Nuchek to meet their supply vessel, the *Coquitlam*. The revenue-cutter *Corwin*, Capt. C. L. Hooper commanding, surprised them in the act of transferring the cargoes of seal skins, and the *Coquitlam* was seized and taken to Sitka for a violation of the United States revenue laws in transferring cargo without authority. At Nuchek there is a salmon cannery and trading post. Here the Russo-Greek Church maintains a school with an enrollment of 37, Mr. Andrew P. Kashevaroff, teacher.

The next morning we steamed up the sound to the little settlement of Taklitat. At the very head of the sound the two branches of the Chugak Alps meet and their snowy sides are perfectly mirrored in the glassy waters. In this out-of-the-way nook the Alaska Commercial Company has a trading post. The trader and almost the entire population of the village were suffering from la grippe. The mail steamer carries a supply of medicines, and an exceedingly formidable quantity of "grip mixture" was left with the trader.

Our next port was St. Paul (Kadiak), on the northeast shore of Kadiak Island. The harbor of St. Paul is encircled by undulating hills and the village nestles among gentle slopes of grass and moss. The climate of this region is mild; cattle are raised and small gardens are numerous. In 1874 a delegation from the Scandinavian residents of Wisconsin made an expedition to this region to determine whether it would be advantageous for their people to seek homes on this island. From their report the following sentences are taken:

> Potatoes grow and do well, although the natives have not the slightest idea of how they should be cultivated, which goes to show that they would thrive excellently if properly cared for. To judge from the soil and climate, there is no reason why everything that succeeds in Scotland should not succeed at Kadiak. Pasture land is so excellent on the island, and the hay harvest so abundant, that our countrymen would here, just as in Iceland, make sheep breeding and cattle raising their chief method of livelihood. The quality of the grass is such that the milk, the beef, and mutton must be excellent; and we had also an opportunity to try these at Kadiak.

On Kadiak Island the dense dark forests dwindle in scattered groves, and from this point westward even these disappear. The sides of the Aleutian Mountains are entirely void of trees. In the summer months, after the snow has disappeared, the shrubs, the grasses, and mosses which cover them are kept intensely green by the almost perpetual fogs and showers. The dugout disappears with the forests, and its place is taken by the bidarka, a narrow canoe of sea lion or walrus hide tightly stretched over frames of driftwood. It has two, sometimes three circular hatches, just large enough to admit a man's body. The hatches are usually furnished with an apron which is fastened around the waist so that the bidarka becomes perfectly water-tight. These "Cossacks of the seas," as Lütke called them, buoyantly ride the roughest waters.

Captain Billings wrote of them, "If perfect symmetry, smoothness, and proportion constitute beauty, they are beautiful beyond anything that I ever beheld."

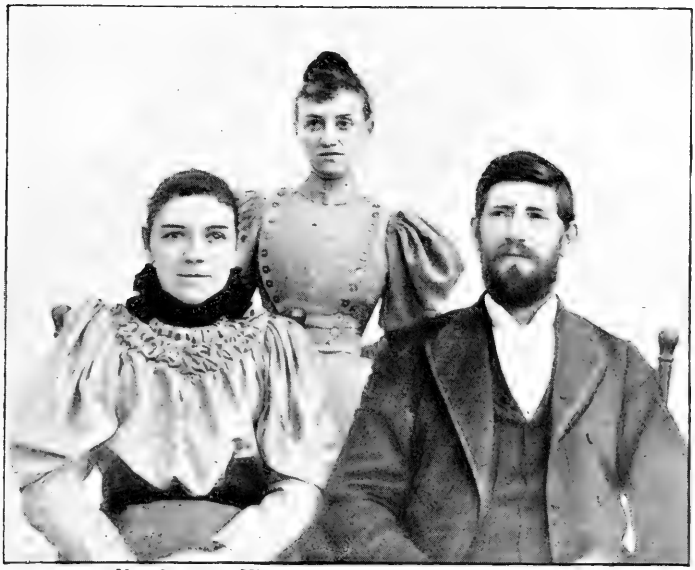
At Kadiak in 1784 the Russian Gregory Shelikoff formed a settlement and commenced the subjugation of the people. The first school in Alaska was organized at this place, and here the first church building was erected. For a long time it was the Russian capital of Alaska. Kadiak is the headquarters of the Alaska Commercial Company for the district comprising Cook's Inlet and Prince William Sound, and furs to the value of $300,000 are shipped yearly. Here the Bureau of Education has an excellent public school, Mr. C. C. Solter teacher. I attended sessions of the school, and have no hesitation in saying that the children are just as far advanced as children of the same age in any village school in the country. I had a satisfactory interview with the members of the local school committee, who here, as elsewhere in the Territory, aid the Bureau of Education with suggestions, and several improvements to the school property were authorized. The priest of the Russo-Greek Church, under whose spiritual care are most of the children, was present.

Near Kadiak Island is Wood Island. Here the Baptist Woman's Home Mission Society has begun a noble work for the rescuing of the waifs and destitute children of that region by maintaining a home. The condition of some of the poorer native children was thus described by Mr. W. E. Roscoe, in charge of the home, formerly teacher at Kadiak:

> In every settlement through this part of the country may be found poor, defenseless children clothed only in rags, with no one to provide suitable food or clothing, and living entirely upon such charity as may be found among a heathen people. There are many destitute children, made so by the drunkenness and the vagabond character of their parents. In the Aleut settlement of Afognak, the natives have sold the bedding from their huts to obtain the vile stuff. The winter is upon them, and until recently they have been so demoralized with liquor that they had not laid in the usual winter's supply of dried fish—their main subsistence. Now, the future of this race is that they will perish from off the face of the globe unless they are Christianized, and that soon. It is a fact that the children do not generally show this terrible craving for strong drink. The pupils of my school are ashamed of their parents' drinking. It is only right and just that our Government take orphan children and inebriates' children and put them in a good industrial school under religious teachers, who, in addition to moral and intellectual training, will teach them the cultivation of the soil, the rearing of cattle, sheep, hogs, and poultry, the elements of some of the mechanical arts, and the girls the arts of sewing and of cooking.

In the hospital on Wood Island were seven men who had been saved from the wreck of the schooner *White*, which was driven ashore at the south end of Kadiak Island in a severe storm on April 13. Eleven of the crew had perished in the icy waters and several of the survivors had been so terribly frostbitten that they would be maimed for life.

Kadiak Island is separated from the mainland by the wide Shelikoff Strait. According to the native legend this was once a narrow chan-



Mrs. Coe. Miss L. Goodchild. Rev. C. P. Coe.

BAPTIST TEACHERS, WOOD ISLAND.

BAPTIST MISSION PUPILS, WOOD ISLAND, ALASKA.

nel. A huge otter attempted to swim through and was caught fast; in his struggles he widened the strait and pushed the island out to its present position.

On the afternoon of May 8 we lay-to off the village of Karluk. There is no harbor here; vessels anchor in the open roadstead and landings are made in boats. The breeze had freshened, a high sea was running, and it was too rough for us to land. A Government school was maintained here for a few years, but a reduction of the Congressional appropriation for education in Alaska rendered necessary a curtailing of expenses and the school was closed in 1892. A teacher has been appointed who will reopen it in the fall of 1895.

The Karluk River, 16 miles long and about 6 feet deep, is one of the most remarkable salmon streams in the world. Beside its shallow waters are located several large canneries where, according to the census report of 1890, about 300,000 cases of salmon were packed. The employees number over 2,000, and in the summer months the Chinese, Italians, Greeks, Portuguese, and Americans constitute one of the most heterogeneous communities under the American flag. The United States commissioner at Unalaska, 700 miles away, is the nearest representative of the authority of the United States. On May 9, as the gale had increased, the captain very considerately ran into a small bay near Cape Providence and remained there until the gale had spent its force.

Unga was reached at 4 a. m. on the 11th. Here I had an opportunity of going ashore and meeting the teacher, Mr. McKinney, and of inspecting the school buildings. Near the village of Unga is the mining property of the Apollo Consolidated Mining Company. By skillful management and wise expenditure of money the mine is being operated with large profit. Two thousand five hundred feet of tunnels have been completed; waterworks, steam compressor, offices, and dwelling houses have been built. The forty-stamp mill is producing monthly $30,000 worth of gold.

Just south of the Shumagin Islands, upon which Unga is located, are immense cod banks whose value is just beginning to be appreciated. They were first reported by Professor Davidson in 1867. Since that time the United States Fish Commission steamer *Albatross* has done a great deal of sounding and mapping of the banks. The value of the Shumagin catch of cod in 1890 was $500,000. As the fur seal decrease it is asserted that the cod-fishing industry will greatly increase, as it is said that one seal will in a season consume cod equal in value to the price of a raw seal skin.

At 9 a. m. we were under way, and at 10.30 came to anchor at Sand Point. Under the wharf and forming its foundation is the wreck of the *John Hancock*. She was built at the Charlestown Navy-Yard in 1842, and was in Commodore Perry's Japan expedition in 1853-54. Shortly afterwards she was condemned and sold into the merchant service.

Her machinery was taken out and she was converted into a three-masted schooner. While in the merchant service as a lumber vessel she was abandoned at sea off the coast of Oregon. Being recovered and brought into port, she was bought by Messrs. Lynde & Hough, of San Francisco, who used her in their codfish trade. On March 7, 1893, a heavy southwester dashed her upon the rocks at Sand Point, her final resting place. Sand Point consists of a few houses belonging to Messrs. Lynde & Hough, a hotel, and United States custom-house. Going ashore I made the acquaintance of Mr. J. H. Bugbee, the agent, and with him selected a ~~sight~~ for a schoolhouse.

On the morning of May 12, feeling our way along, the fog horn sounding, we turned north in the mists of Bering Sea through Unimak Pass, in the Aleutian chain, whose seventy islands stretch for a thousand miles like gigantic stepping stones toward Siberia. Attou, the westernmost limit of the land possessions of the United States, is beyond the one hundred and eightieth meridian and within the Eastern Hemisphere. Soon the fog lifted and we steamed through waters as smooth as a mill pond. Bold headlands, towering pinnacles of rock, mountain slopes carpeted with mosses whose intense green was heightened by great patches of snow here and there; volcanoes draped with cloud and plumed with smoke delighted the eye as we glided along. In a few hours we swept past Priest's Rock, an outlying pinnacle which bears a resemblance to a priest of the Greek Church in his robes, and entered Unalaska Bay. Twelve miles up the bay is the village of Unalaska or Iliuliuk (the curving beach), the commercial center of western Alaska. It is the port of entry for Bering Sea. A deputy collector of customs, deputy marshal, and a United States commissioner reside here. At Unalaska are the headquarters of the Alaska Commercial Company for the western and arctic regions of the Territory. At the neighboring village of Dutch Harbor are the offices of the North American Commercial Company, also controlling trading posts scattered over thousands of miles of territory. During the summer months Unalaska is the rendezvous for all the shipping in that part of the world. The ships of the arctic whaling fleet call here for coal, water, supplies, and mail, and to leave news of the movements of the arctic ice and the catch of whales, and receive tidings of the great world to the south. Since 1891 it has been the headquarters of the United States and British fleets engaged in the Bering Sea patrol.

In the vast territory tributary to Unalaska are numerous waifs, many of them the children of white men. Here at Unalaska the Methodist Woman's Home Mission Society in 1889 entered upon the noble work of taking these poor children out of their squalor and mental darkness, and by surrounding them with the influences of a Christian home to lift them into a higher civilization. From a beginning with two orphan waifs from the island of Attou, 1,000 miles west of Unalaska, the home family had increased in June, 1895, to about thirty, and the transfor-

mation that careful, conscientious training had wrought in the children was marvelous. While waiting to join the United States revenue-cutter *Bear* in its arctic cruise I became intimately acquainted with the work being done in the home under the supervision of Mr. and Mrs. Tuck, and I have no hesitation in saying that a neater, more intelligent, well-behaved set of children it would be hard to find anywhere in the country. In the schoolroom, which I visited repeatedly, I found that good progress had been made in the acquisition of the English language. Those children who had been in the home for three years or more not only read, wrote, and spoke, but also seemed to do their thinking in English. From its commencement in 1889 until the past summer the home has been maintained in a small one and one-half story rented cottage. During the summer a commodious boarding house was erected.

The Aleutian Islands are so remote, so little is generally known of them, to the visitor they have such an air of primeval solitude that one finds it difficult to realize that they have been the theater of stirring events and have a history extending back one hundred and fifty years. No notice of this region would be complete without at least a glance at this history. I quote the following résumé from Dr. Sheldon Jackson's report for 1890:

The discovery of these islands by Europeans is due to the unbounded ambition of Peter the Great, of Russia, who, having founded a Russian Empire in Europe and Asia, would also found one in America. The western coast of America had been explored as far as Cape Mendocino, California, but from California north it was a vast, unknown region—"the great northern mystery, with its Anian strait and silver mountains and divers other fabulous tales." To solve these mysteries, to determine whether Asia had land communication with America, to learn what lands and people were beyond his possessions on the eastern coast of Siberia, Peter the Great, in 1724, ordered two expeditions of exploration and placed them both under the command of Vitus Bering, a Dane in the Russian service. The expedition set out overland through Siberia on January 28, 1725, under Lieutenant Chirikoff. Three days later the Emperor died, but the expeditions were energetically pushed by his widow and daughter. The first expedition, from 1725 to 1730, explored Bering Strait, and settled the question of separation between Asia and America.

The second expedition was fitted out by the Empress Catherine, and consisted of two vessels, the *St. Paul*, commanded by Bering himself, and the *St. Peter*, in charge of Alexei Ilich Chirikoff, second in command. The expedition was accompanied by several scientists and sailed from Avatcha Bay, Kamtschatka, on June 4, 1741. This ill-fated expedition discovered the mainland of Alaska and the Aleutian Islands. But the remnant that brought back the news of the discovery of northwestern America also brought with them the beautiful furs of the sea otter, and wide-awake merchants were not slow to see their opportunity. As the adventurous hunt for the little sable had led the hardy Cossack and extended Russian dominion from the Ural Mountains across Asia to Kamtschatka and Bering Sea, so now the hunt for the sea otter was to extend Russian settlement 2,000 miles along the coast of America. A few months after the return of Bering's expedition in the spring of 1743, Emilian Bassof formed a partnership with a wealthy Moscow merchant, built a small vessel named the *Kapiton*, and commenced the fur trade of the newly discovered islands. On his second trip in 1745 he collected 1,600 sea otters, 2,000 fur seals, and 2,000 blue Arctic foxes. This was the commencement on the part of the merchants of Siberia of a mad race after the furs of Alaska—a race so mad that they could not wait the

securing of proper materials for the building of safe vessels and the procuring of trained seamen. Boats were hastily constructed of planks fastened together with rawhide or seal-skin thongs. In these unseaworthy boats, without charts or compass, they boldly ventured to sea, and the half of them found a watery grave. Those who did return in safety with a fair cargo received from 2,000 to 3,000 rubles each as their share of the profit.

On the 26th of September, 1745, for the first time the discharge of firearms was heard on the Aleutian Islands. A native was shot on the island of Agoto by a party of Russians under Chuprof. Then commenced a reign of lust, robbery, and bloodshed, which lasted for fifty years. One Feodor Solovief is reported to have alone killed 3,000 Aleuts. Veniaminof, who was the leading Greek priest and first bishop of Alaska, declares that during that dreadful period Aleuts were used as targets for Russian practice in firing. In 1764 Captain Solovief formed a settlement. His stay on the island was marked by such bloody atrocities that the few who survived were completely subjugated. His name has come through a hundred years of local tradition as the synonym of cruelty. Among other things it is said that he experimented upon the penetrative power of his bullets by binding twelve Aleuts in a row and then firing through them at short range. The bullet stopped at the ninth man. In 1770, when the American colonists were preparing themselves for the struggle for independence, the struggle of the Aleuts was ending. They had given their lives in vain. The few who were left could no longer maintain the unequal conflict and were reduced to practical slavery.

During the first week of June the fleet of vessels which was to patrol Bering Sea rendezvoused at Unalaska. Officers and sailors gave life to the hitherto deserted street, dainty revenue cutters and a trimly built British gunboat rode at anchor in the harbor; saucy little steam launches and natty, white boats darted about; bugle calls floated out over the tranquil waters, now and then jets of flame and columns of smoke would shoot from the side of some vessel at target practice and a spurt of dust on the mountain side show where the shot had struck. All was life and action, where there had been silence and stagnation. There were calls upon the officers of the various ships, photographic excursions, climbing of mountains whose ravines still held the winter snows, balls, and even a wedding at high noon in which the contracting parties were Miss Short, who had been the public-school teacher at Unalaska during the past year, and Mr. Hastings, one of the agents of the Alaska Commercial Company.

On the 10th of June the United States revenue cutter *Bear* steamed into the harbor. On this famous vessel I was to spend the summer among the ships of the Arctic whaling fleet, to cruise in uncharted seas whose waters are disturbed only by the skin canoes of the natives and by huge ice floes, to visit the school teachers and missionaries exiled on the shores of the frozen ocean, and see the underground dwellers in the Land of the Midnight Sun and the long Arctic night.

The annual cruise of the *Bear* is unique in its multifarious duties and its practical usefulness. In northern Bering Sea and in the Arctic Ocean, and along vast stretches of coast unknown to civilization, the flag of the *Bear* is the only evidence of the authority of the United

States ever seen. Leaving San Francisco in spring, during the early part of the cruise she patrols the North Pacific, enforcing the regulations with regard to sealing, also preventing smuggling and exercising a salutary influence generally along the southern shore of the mainland of Alaska and the Aleutian Islands. Later in the season when the ice retreats before the summer heat, she turns northward into Bering Sea and the Arctic Ocean. In these waters, in addition to performing the ordinary duties of a revenue cutter, protecting the interests of the customs and preventing smuggling, she furnishes relief to the ships of the arctic whaling fleet and all other vessels in times of peril and disaster. During the past fifteen years she has rescued and taken from the bleak and sterile coast of western and arctic Alaska more than a thousand shipwrecked mariners and destitute miners. She collects all possible geographical, ethnological, and scientific information; she affords protection when needed to thousands of half-civilized natives, whalers, traders, teachers, and missionaries, and to anyone in distress; to her captain, as the sole representative of the authority of the United States, are referred troubles between whaling captains and their crews, and his advice is sought on all subjects; her surgeon furnishes the only medical attendance which white men and natives along thousands of miles of coast ever receive; most of the mission houses and school buildings in the Arctic were erected with the aid of her carpenter; during the past five years her usefulness has been still further increased by cooperating with the Bureau of Education in procuring and transporting reindeer from Siberia into Alaska. Since 1884 her commanding officer has been Capt. Michael A. Healy, and the ability, zeal, and faithfulness with which he has discharged his multifarious duties has rendered his name famous throughout the land.

During the entire cruise I was fortunate in having as my shipmates in the captain's cabin Dr. Benjamin Sharp, secretary of the Academy of Natural Sciences of Philadelphia, and his friend, Mr. John M. Justice, also of Philadelphia.

Leaving the wharf at Dutch Harbor, Unalaska, on June 24, the *Bear* headed for the seal islands, St. Paul and St. George, lying 250 miles to the north.

In 1786, when the supply of furs upon the Aleutian Islands began to decrease, efforts were made to discover the summer retreat of the seal. For years it had been noticed that they went north in the spring and returned in the fall with their young, but so well had nature hidden these islands that the Russian Gerassim Gavrilovich Pribilof cruised around them for three weeks in his vessel *St. George* without discovering them. At last the fog lifted and their green shores and rocks covered with seal were sighted. Soon the islands became the "bank" which supplied Baranof with funds to carry on his government in Alaska. If he needed supplies for his colonies, all he had to do was to kill seal and pay in seal skins. In order that the seal might not be

exterminated, in 1805 the Russian Government prohibited their killing for a period of five years, and the rookeries regained their numbers. For a few years after the transfer of Alaska to the United States indiscriminate slaughter of the seals was carried on by seven different firms.

In 1869 the islands were declared a Government reservation, and a company of soldiers stationed on them. In 1870 the seal fisheries were leased for twenty years to the Alaska Commercial Company, of San Francisco, at an annual rental of $55,000 and a tax of $2.62½ on each skin In 1890, at the expiration of their lease, the Alaska Commercial Company had paid into the Treasury of the United States $5,956,565.67. Since 1890 the lease of these fisheries has been held by the North American Commercial Company, also of San Francisco, at an annual rental of $100,000 and a tax of $9.62 on each seal. Pelagic sealing and rookery raiding have so diminished the numbers of the seals that 20,000 skins is now the average number killed by the company each season.

On June 25 we sighted the fog-wreathed cliffs of St. George, but a heavy sea was running, the fog became thicker as we approached the island, and it was not considered safe to attempt to make a landing. The same evening we were in the vicinity of St. Paul, but by this time the fog had become even more dense, and the visit to these famous islands had to be deferred until our return in the fall. Accordingly, the *Bear* shaped her course for St. Lawrence Island, the largest body of land in Bering Sea.

In the bright, clear sunshine of June 26, over seas as smooth as glass, we glided past barren St. Matthew's Island, a famous home of bears, with its massive Cape Upright and towering Pinnacle Rock. On June 28 the anchor was dropped off the north side of the village on St. Lawrence Island. A high sea was running, and a long line of angry white breakers dashing upon the icy beach formed a barrier to the crowds of natives whom we could see walking along the shore waiting for a chance to launch their canoes and come to the ship. Among them we could distinguish Mr. and Mrs. Gambell, the teachers who have just completed their first year among these half-civilized people, the only white persons on the island, with no communication with the outside world for eight or nine months of the year. Soon huge cakes of ice came drifting down toward us; the anchor was weighed and the vessel steamed over to a more sheltered position on the south side of the sand spit upon which the village is built. As soon as the anchor was dropped, a flotilla of oomiaks was alongside, and the St. Lawrence Islanders flocked on board, stalwart fellows with dark, tattooed faces and tonsured heads, like so many very dirty but exceedingly good-natured monks, with massive shoulders developed by almost constant use of the paddle, dressed in suits of reindeer fur or hair seal. Some of them wore summer suits of drilling and the poorer ones had shirts constructed of flour bags with the inscription "Franklin Mills

REV. AND MRS. THOMAS HANNA, CONGREGATIONAL TEACHERS, CAPE PRINCE OF WALES, ALASKA.

MR. AND MRS. V. C. GAMBELL, PRESBYTERIAN TEACHERS, SAINT LAWRENCE ISLAND, BERING SEA.

Flour" very much in evidence. Soon the decks were swarming with them, and there was bartering of fox skins, ivory, and curios for powder, lead, flour, tobacco, drilling, matches, and other useful articles.

The Alaskan Eskimo and the Siberian seem to care nothing for articles so frivolous as beads and looking-glasses; their struggle for life in their barren, sterile environment has rendered them intensely practical in their desires. Mr. and Mrs. Gambell came into the cabin and spent a few hours receiving and giving the news of a year. Although exiled from civilization, the first teachers among a hitherto primitive people, they have been happy and contented, and are in the best of health and spirits. The school has an enrollment of 52. In the afternoon several of us descended into one of the larger canoes, and were paddled ashore by a chattering, gesticulating crowd. Landing through the surf on an icy beach from an unsteady oomiak whose bottom gives when you tread on it is distinctly an achievement. When we entered the foaming surf several of the most stalwart men leaped into the boiling waters, seized the thwarts of the oomiak, and, with loud shouts, dragged it beyond the reach of the breakers. The excited gesticulations of these islanders in fur, their loud cries, the seething waters churning the ice and gravel of the beach formed a scene of animation never to be forgotten. Snatching up camera cases and tripods, clambering over natives, seats, and paddles that seemed to be everywhere, we passengers scrambled our way to the prow and made wild leaps for terra firma. Over heaps of gravel with ice beneath it we made our way to the schoolhouse and cosy home of the Gambells. Then, escorted by a throng of bright-looking natives and equally numerous dogs, we strolled through the village, taking several photographs. The village contains 32 houses or tents of deerskin and has a population of 332.

At 8.40 next morning we weighed anchor and headed for Indian Point, Siberia, about 40 miles distant. In a few hours land was sighted on the starboard bow—sharply defined peaks projecting above the low-lying mists, and as we drew nearer, the clustering deerskin tents that form the Tuchtchee village of Indian Point came into view. As usual, almost the entire population came on board. Prominent among them was Koharri, the most influential native in that region. He has a little frame house, filled from floor to ceiling with tobacco, flour, and looking-glasses, which he has obtained from the whalers, and from which he supplies the country for miles around. This man has been known to have as much as $75,000 worth of whalebone in his storehouse at one time. He does a business of probably $100,000 a year, and yet not a single bank note or bank check is used, nor are any books kept. All transactions are by barter—furs and whalebone being exchanged for tobacco, flour, and whisky. This wholesale merchant of the North Siberian coast can neither read nor write, nor can anyone associated with him. Although so wealthy, he lives in an ordinary tent and sleeps on the ground on a pile of deerskins. At this place

two Cossack officers were found taking the census of the village. This was the first visit of Russian officials to that section of the Siberian coast in many years, and the natives brought the Russian coins they had received from them over to the ship to sell as curios. Here, as elsewhere on the trip, the ship's surgeon went ashore to treat the sick.

Turning northward and coasting along the desolate, forbidding shore the vessel anchored July 1 off South Head, St. Lawrence Bay. Here Peter and Kimok, the leading men of that section, came on board, and in the pilot house a consultation was held as to the number of deer they were willing to sell this season. Forty deer were promised. The herd, however, was on the opposite side of the bay and could not be reached until the ice should go out a month later. Peter and Kimok were kept on board to serve as agents and interpreters in the reindeer trade during the season.

Kings' Island was sighted at 2 a. m. on July 2. It is a mass of basalt, about a mile in length, rising about 1,000 feet above the sea. Upon it is one of the most remarkable settlements in Alaska. The rocks rise perpendicularly from the ocean except on the south side, where a ravine rising at an angle of 45 degrees scars the cliff; on the side of the ravine is the village of about forty huts, partly excavated in the side of the hill and partly built up with stone walls. Across the top of these walls are large poles of driftwood, on which hides and grass are placed to form a roof. These are their winter residences. In making their summer homes they use the roof of the underground house as the floor and over it build a tent of walrus hide stretched over a wooden frame. These summer houses are guyed to the rocks with rawhide to prevent them from being blown off into the sea. On the opposite side of the ravine is a cave, into the mouth of which the sea dashes, and at the back of the cave is a bank of perpetual snow. On the side of the mountain above is a perpendicular shaft from 80 to 108 feet deep leading down to the snow in the cave, which is used as the village storehouse. Walrus and seal meat are dropped down the shaft and stored in the snow, were it keeps indefinitely. The women gain entrance into their cellar by letting themselves down hand over hand along a rawhide rope.

Leaving this hermit colony astern, the *Bear* headed for Point Spencer, at the entrance to Port Clarence, on whose shores the reindeer station is located. As we neared land, huge floes of drift ice were encountered; the officer of the deck went to the "crow's nest," and at slow speed the captain and the first officer carefully guided the vessel on her course. When the larger pieces of ice were struck, she would quiver for an instant from stem to stern like a thing of life. On rounding Point Spencer, the whaling fleet was seen riding at anchor with flags flying in honor of the arrival of the Government vessel. As the *Bear* neared each ship, flags were dipped and steam whistles pierced the quiet air. After cruising in deserted, ice-covered waters, the only craft

SIBERIAN REINDEER MEN, PETER AND KIMOK.
Photograph by William Hamilton.

a skin canoe here and there, it was an inspiring sight in this far off, uninhabited bay, almost within the Arctic Circle. The whaling fleet usually leaves San Francisco in January, and it is their custom to gather at this point about the 1st of July before entering the Arctic Ocean to meet the steamer sent from San Francisco with a fresh supply of provisions and coal. Soon after anchoring, the captains of the whalers began arriving, in order to get their mail; for among other good offices the *Bear* brings up the annual mail for the whalers, traders, teachers, and others in the Arctic regions of the United States. Great bundles of letters and papers were piled on the captain's table, which were carefully scanned, each man picking out those that belonged to himself or his crew. Among the visitors were Mr. Kjellmann and Mr. Brevig, from the reindeer station 10 miles away, who brought the news of the successful wintering of the herds. I spent July 3 inspecting the station. As the affairs of the station are treated in detail elsewhere in this report, I shall not dwell on them.

On the morning of the Fourth of July all vessels dressed ship in honor of the day. A baseball game on shore, a salute of twenty-one guns at noon, and a dinner on the *Bear* to the whaling captains comprised the public celebration of the day.

At 2 a. m. July 5 we were under way and turned southward toward St. Michael. Norton Sound, through which we cruised, is tinged with the flood of fresh water which the Yukon empties into the sea 60 miles south of St. Michael, and on its surface float masses of driftwood brought down from the interior. As we approached the settlement we met the Alaska Commercial Company's steamer *Bertha* coming out to search for an overdue brig, which was bringing supplies for the company's post at St. Michael and also for its stations farther up the river. At 2.30 the *Bear* anchored in the stream about 3 miles from shore, being unable to approach nearer on account of the shoals.

St. Michael is located on the first good site for a trading post north of the delta of the Yukon, and is the outlet of the Yukon trade, and also the base of supplies for the country bordering on the river and its many gold-bearing tributaries. The village consists of the offices and warehouses of the Alaska Commercial Company, the houses of their white employees, and a small native settlement. The trading post was established by the Russians in 1835. A blockhouse and several of the original buildings are still standing. During our visit the population was considerably augmented by the presence of a party of missionaries who were waiting here for the arrival of the small, light-draft, stern-wheel steamer which would convey them to their destinations up the river. It is said that one of the missionaries who is stationed 2,000 miles, more or less, up the river, when he saw his freight bill of $125 per ton for transportation from St. Michael to his station, added a very earnest petition in his prayer that freight might be reduced. At St. Michael I had the pleasure of renewing my acquaintance with the Rev.

and Mrs. J. L. Prevost, of the Episcopal mission of St. James, and of meeting Fathers Judge, Post, and O'Hare, of the Catholic missions.

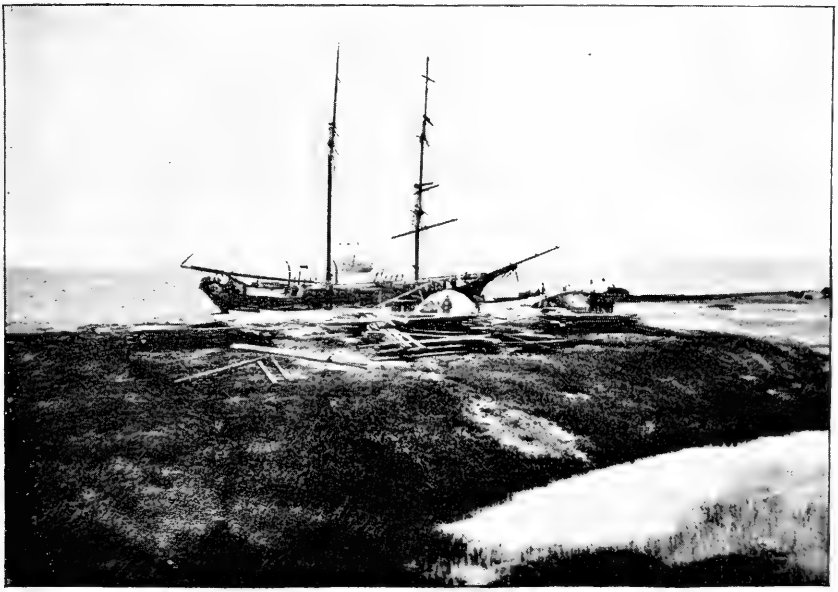
On July 8 we again headed for Siberia, where it was expected that by this time the ice would have left the coast in the vicinity of St. Lawrence Bay. On our way we visited Sledge Island. The village is a cluster of hillocks, each with a square hole in the top, through which one descends into a chamber from 20 to 25 feet square and about 8 feet deep. At the corners and along the sides posts of driftwood had been placed. Other timbers across the top formed the roof. Against the sides dirt and sod were piled, making it proof against the intense cold, and also very successfully imprisoning the powerful odors of the seal and walrus meat that lay about in huge chunks. Light is admitted through the translucent bladder of a seal or walrus tightly stretched over a hole in the ceiling. Several of the houses were connected by underground tunnels. Excepting a few old women, the village was deserted, almost the entire population being sight-seeing on the *Bear*.

At East Cape, Siberia, on July 9, four or five influential natives were taken on board to aid in procuring reindeer. Learning that there was a large herd about 50 miles to the north, the vessel entered the Arctic Ocean. Early in the morning of July 11 the *Bear*, picking and forcing her way through the ice, reached the village of Utan, and there on the beach was the herd of deer. As soon as the anchor was lowered a boat was manned and steered carefully among the floes to shore. In order that the deer might be more easily kept together, they had been driven down to the beach, which was covered with ice and snow. On the bank above, however, the snow had disappeared and the ground was carpeted with moss and flowers—great patches of forget-me-nots and yellow poppies. Here, as elsewhere on the coast of arctic Alaska and Siberia, the profusion of wild flowers is surprising.

The herd numbered about 500, and seemed to be owned by about half a dozen men, each man's deer bearing his mark. The deer men are very expert in the use of the lasso, and had no difficulty in throwing the noose around the particular deer to be sold. As each one was caught it was brought down to the boat, its front and hind legs hobbled, and it was stowed in the bottom of the boat. When a load of about a dozen had been secured they were rowed over to the *Bear* and placed in stalls. Sixteen deer were secured at this place. Continuing the trip up the coast, the *Bear* tied up to a huge ice floe, near Cape Serdze, Siberia, and the interpreters were sent inland to bring more deer to the coast. While waiting we spent the time in taking photographs, exploring the neighboring coast, and visiting the native village. There were also some very successful ducking expeditions. The ice closing in, the *Bear* was compelled to move a few miles farther south, anchoring off Chacoran, where 22 deer were secured. In that latitude at that time of the year there was hardly any night, and on this occasion work commenced at 2 a. m., and it was 12.30 (midnight) before the

GROUP OF SIBERIAN REINDEER MEN, SAINT LAWRENCE BAY, SIBERIA.

Photograph by William Hamilton.



BRIG W. H. MEYER, WRECKED ON BEACH IN FRONT OF TELLER REINDEER STATION, 1895.

Photograph by J. M. Justice.

last deer man was paid off in barter goods. Anchor was weighed as soon as the oomiaks were clear of the ship, and the vessel once more got under way for Port Clarence. While we were crossing Bering Straits a heavy gale came up and several deer were badly injured by the rolling and pitching of the vessel. We did not reach Point Spencer until the 17th, and as the gale was still violent we anchored in the lee of the cape until it subsided.

About noon of the 20th the *Bear* steamed over to the reindeer station and landed the deer. The brig *W. H. Meyer*, with the annual supplies for several stations and schools on board, was found wrecked on the beach in front of the station, having gone ashore during the gale on the night of the 17th. The supplies for the station had fortunately all been landed, but those for the schools at Cape Prince of Wales and Point Barrow were lost. Mr. and Mrs. Hanna, who were to relieve Mr. and Mrs. Lopp at Cape Prince of Wales, had been passengers on the *Meyer*, and unfortunately their supplies had been so damaged as to be useless. They were heartily welcomed and cared for at the station.

On July 22 the *Bear* weighed anchor and headed for Siberia for another load of deer, and on July 23 reached St. Lawrence Bay. On the 24th she steamed to the head of the bay, where 43 head were secured. The next day she returned to the station and landed the deer. Mr. and Mrs. Kjellmann having decided to return to the States, it was possible to spare supplies for Mr. and Mrs. Hanna. By the courtesy of Captain Healey they were received on board and landed at Cape Prince of Wales on the afternoon of the 27th.

Cape Prince of Wales is the westernmost point of America, and is a bold promontory rendered remarkable by a number of jagged points upon its ridge. Here is the largest village on the American side, with a population of 539 Eskimos. This school has been remarkably successful, and I repeat a short sketch of it which has been printed in a previous report, but which may now reach a larger number of readers:

In 1890 the American Missionary Association (Congregational) established a station at this place, with Messrs. W. T. Lopp and H. R. Thornton as teachers; school was opened on the 18th of August, 1890, with only about one-fourth of the population returned to the village from their summer's hunt.

The school being established among a wild people who had known no restraints, and who could not comprehend the purposes or language of the teachers in coming to them, at first, through misapprehension, there was a good deal of trouble. On the 19th of September Elignak, one of the wealthiest men of the village, and one of his wives, both in a state of beastly intoxication, tried to force their way into the house. On the 23d of September some of the students became so boisterous and unruly in the schoolroom that they also had to be excluded from the house. And again, in November, drunken parties tried to break in and make a disturbance, so that for two months the teachers taught, ate, worked, and slept with loaded arms at hand, not knowing at what moment they might have to defend the property committed to them and their lives. They were constantly harassed with questions as to when resistance should begin and how far it would be justifiable, debating in their own minds whether it would be better to allow themselves to be robbed or murdered without resistance, or through resistance make the savages respect their manhood.

The danger to the station was greatly increased by an epidemic of the grip, which carried away 26 people in two months. This was by the superstitions of the people attributed to the presence of the white men among them. However, through tact and good management and the providence of God, hostilities were prevented, and by January the strained situation was greatly relieved. Mutual confidence sprang up between the natives and the teachers. Having heard, before going to the place, of the bad reputation of the people (which, however, it was found they did not deserve), and feeling that a people who knew nothing of schools would not endure for any length of time the restraints of a schoolroom, and the cost of building being very great (all lumber and material being sent from San Francisco, 3,000 miles), the schoolhouse was built to hold about 50 pupils, and it was thought that if 50 pupils could be obtained among such a people, under such circumstances, it would be a very great success. But to the astonishment of the teachers themselves, and to the astonishment of the friends of education interested in these Arctic schools, it was found that the total enrollment for the first year was 304 pupils, out of a population of 539 people. The average daily attendance for the last seven months of the school was 146, and the average daily attendance for the whole session of nine months was 105. As the schoolroom would hold only about 50 at a time, the teachers were compelled to divide the pupils into three classes, and hold morning, afternoon, and evening sessions of school. And then, to prevent the children who belonged to the afternoon or evening school from smuggling themselves into the morning session, or the morning children from remaining to the afternoon or evening session, it was found necessary to build two parallel snow walls some distance from the schoolroom door, and when the bell stopped ringing for school the teachers ranged themselves on either side, in order to sift the children that were trying to get into the schoolroom. It was with great difficulty that the pupils were made to understand that it was not proper to talk and laugh and jump over the benches in the schoolroom during school as much as they pleased; nor could they understand why thirty or forty visitors could not lounge about the room which was needed for those who desired to study; so that upon several occasions it became necessary to exclude certain parties from the schoolroom, but this exclusion of a few days was all that was necessary. It was considered a great punishment not to be able to come to school. During the epidemic a number of slates of the children that they had been allowed to take home at night were returned by order of the medicine men, who ascribed that much of the sickness was due to the slates and the pictures which the children made upon them—they were "bad medicine."

The teachers began their school work by learning the Eskimo names of the most important objects in daily use and training their pupils in the English equivalents. From words they proceeded to phrases, and from phrases to sentences, teaching them to translate the Eskimo into English and vice versa. They gradually added English letters and numbers, together with some elementary geography and arithmetic. Although they had had a combined experience of thirteen years in the schoolroom in the States, the teachers declare that they never had more quick-witted, intelligent pupils than these wild Eskimo children. At the beginning of the school year only a few could count ten in a blundering fashion, and nine-tenths of the pupils knew practically no English whatever. At the close of the first school year they had a good working vocabulary, knew something of geography and map-drawing, understood thoroughly the decimal basis of our numbers, could count up to one thousand, work examples in simple addition, write and read simple English words, and carry on a conversation in English on everyday practical matters. The pupils showed a remarkable desire to learn for learning's sake. During 1891–92 the average daily attendance was 106, and during 1892–93, 160.

In the summer of 1893 Mr. W. T. Lopp was appointed superintendent of the reindeer station at Port Clarence, and with his wife removed to that place, leaving Mr. and Mrs. H. R. Thornton in charge of the mission. On the 19th of August, 1893, Mr. Thornton was assassinated by two young men whom he had expelled from school for

ROMAN CATHOLIC MISSION PUPILS, KOSEREFSKI, YUKON RIVER, ALASKA.
Photograph by Rev. F. Barnum, S. J.

disorderly conduct. The community at once showed their horror at the act by summarily killing both the murderers.

After the death of her husband Mrs. Thornton returned to her parents in Maine, and the mission was closed for the season of 1893–94.

During the summer of 1894 Mr. Lopp returned to Cape Prince of Wales and reopened the school.

July 30 found us wind-bound in the lee of Chamisso Island, Kotzebue Sound. While here a search party for Mr. Gibson, a missing trader, was organized. Lieutenant White was put in charge, and, with Dr. Sharp, Mr. Justice, and myself as passengers, the expedition left the ship in one of the sailing cutters at 4 a. m. on August 1. Mr. Gibson's last camp, according to the native who accompanied us, had been on the Buckland River, which empties into Eschscholtz Bay, at the head of Kotzebue Sound. In our trip we followed the course taken by Captain Beechey in the expedition of Her Majesty's ship *Blossom* in September, 1826. In the southern part of the bay are the extraordinary ice formations which have attracted much attention among geologists. They were explored by Kotzebue, and subsequently examined by Captain Beechey, who gives the following description of the formation:

While the duties of the ship were being forwarded under my first lieutenant, Mr. Peard, I took the opportunity to visit the extraordinary ice formations in Eschscholtz Bay, mentioned by Kotzebue as being covered with soil half a foot thick, producing the most luxuriant grass, and containing abundance of mammoth bones. We sailed up the bay, which was extremely shallow, and landed at a deserted village on a low, sandy point, where Kotzebue bivouacked when he visited the place, and to which I afterward gave the name of Elephant Point, from the bones of that animal being found near it. The cliffs in which this singular formation was discovered begin near this point, and extend westward nearly in a straight line to a rocky cliff of primitive formation at the entrance of the bay, whence the coast takes an abrupt turn to the southward.

The cliffs are from 20 to 80 feet in height, and rise inland to a rounded range of hills between 400 and 500 feet above the sea. In some places they present a perpendicular front to the northward; in others a slightly inclined surface and are occasionally intersected by valleys and water courses, generally overgrown by low bushes. Opposite each of these valleys there is a projecting flat piece of ground, consisting of the materials that have been washed down the ravine, where the only good landing for boats is afforded. The soil of the cliffs is a bluish-colored mud, for the most part covered with long grass, full of deep furrows generally filled with water or frozen snow. Mud in a frozen state forms the surface of the cliffs in some parts; in others the rock appears with the mud above it, or sometimes with a bank half way up it, as if the superstratum had gradually slid down and accumulated against the cliff. By the large rents near the edges of the mud cliffs they appear to be breaking away and contributing daily to diminish the depth of water in the bay.

Remains of mammoths have been found in abundance near Elephant Point, many of which have been deposited in the British Museum. We were fortunate in securing several bones. Mr. Gibson, the missing trader, concerning whom various rumors had been circulated, some to the effect that he had been murdered by the natives, was found near his camp. He was in good health and had been on an extended trading

expedition up the river; his long detention had occasioned the rumors of his death.

On August 5 the *Bear* anchored off Point Hope. The village is located on a narrow strip of land extending about 16 miles into the Arctic Ocean. This gives it its native name, Tig e rach (finger). It has evidently been formed by two great fields of ice grounding and pushing up the sand in a ridge between them. Formerly the point extended farther into the ocean, but one year the ice pack came along with such force as to cut off the end of it, sweeping away a number of underground houses. A bitterly cold north wind swept across the sand spit as we landed upon it and made our way to the schoolhouse and mission maintained here by the Domestic and Foreign Missionary Society of the Episcopal Church.

The school was opened on the 1st of October, 1890. The day brought with it a blizzard and snowstorm that lasted for nine days. During the morning the teacher occupied the schoolroom alone, but as time wore on and no pupils came he put on his furs and started for the village to hunt up the children. Upon going outside the house he found a boy walking the beach. Taking him into the schoolroom he commenced school. At the close of the afternoon he presented his pupil with a couple of pancakes left from his own breakfast. The effect was equal to any reward of merit. That boy proved one of the most regular in attendance during the entire winter season. The next morning four presented themselves, and from that the school grew to sixty-eight. A mixture of flour, molasses, and water made a sort of cake, a little of which was given to the pupils each evening, proving not only a very cheap and efficient method of securing regular attendance, and promoting discipline, as they had to be both present and perfect in their deportment and recitations to be entitled to cake. The scholars usually arrived from 6 to 7 in the morning and remained all day. The sun disappeared on the 10th of December and returned on the 3d of January, giving them a night of twenty-four days. Lamps were required in the schoolroom from November 12 to February 9. The thermometer varied in the coldest weather from 27° to 31° below zero, the average of the winter being probably about 15° below zero. During February and a portion of March a series of blizzards set in that were beyond description. The ice was solid across the ocean to Cape Prince of Wales, 200 miles distant. The effect of the gales was such that at times it seemed as if the schoolhouse must be blown away. Snow flew in perfect sheets. The schoolhouse was located 2 miles from the village, and yet, notwithstanding the storms and distance, the attendance was good. For a few days the teacher hired men to see the little ones safely home through the storm (the two miles distance), but soon found that the precaution was unnecessary; that they were accustomed to take care of themselves.

During the past year Dr. Driggs has had the assistance of the Rev.

ROMAN CATHOLIC MISSION, KOSEREFSKI, YUKON RIVER, ALASKA.
Photograph by Rev. F. Barnum, S. J.

E. J. Edson. Dr. Driggs was taken on board the *Bear* to return to the States for a vacation.

On August 7 the *Bear* started up the coast for Point Barrow, wending its way through large packs of floating ice, and on the following day caught up with the whaling fleet at anchor near Icy Cape, at the southern edge of the great arctic ice pack. The whaling fleet had been at anchor for nineteen days, waiting for the ice to open. The *Bear* lay there for fourteen days longer, waiting for an opportunity to get farther north. Parties from Point Barrow, who came down the coast for their mail, reported that the past winter had not been very cold, the lowest temperature being 30° below zero. Giving up all expectation of getting farther north, young ice forming on the sea and on the rigging of the vessel, the captain concluded to turn southward, which he did on August 22. The following day a school of walrus was sighted several miles away, and hunting parties were sent out and secured ten of them. Picking up the walrus, the vessel continued southward, calling at Point Hope the next day. On August 27, at Cape Prince of Wales, Mr. and Mrs. Lopp were taken on board, also returning to the States for a vacation.

The reindeer station was reached on the evening of the same day, and two days were spent in securing requisitions and finishing up the business of the year. On September 1, at St. Michael, the *Bear* took on board sixteen destitute miners from the Yukon. On the evening of September 4 the vessel anchored off the St. Lawrence Island village. The evening was spent closing up the season's business at the station. Requisitions were made out for another year's supplies, last letters were received, farewells were spoken, and Mr. and Mrs. Gambell were again cut off from all communication with the world for another year. September 6 St. Matthew and Hall islands were passed, and on the 7th anchor was dropped at St. Paul Island, where on the 8th a landing was made for a few hours. On September 9 a similar landing was made at St. George Island, and at noon on September 11 anchor was dropped in Dutch Harbor, Unalaska, closing the arctic cruise of 1895.

At Unalaska, by the courtesy of Capt. C. L. Hooper, I was received on board the United States revenue cutter *Rush*, on which I remained until her arrival at San Francisco, October 6. On October 9 the start was made for Washington, which was reached on the 14th, completing a trip of about 16,000 miles during the season.

I desire to acknowledge the many courtesies received from Capt. M. A. Healy, commanding the *Bear*, and from Capt. C. L. Hooper, commanding the *Rush;* also the hearty cooperation and indispensable aid rendered by the officers and crew of the *Bear* in the importation of reindeer.

I have the honor to be, very respectfully, yours,

WILLIAM HAMILTON,
Assistant Agent of Education for Alaska.

Hon. W. T. HARRIS, LL. D.,
Commissioner of Education.

APPENDIX B.

ANNUAL REPORT TELLER REINDEER STATION.

By WILLIAM A. KJELLMANN, Superintendent.

[Translated by Rasmus B. Anderson, LL. D., ex-United States minister to Denmark, author of Norse Mythology, First Chapter of Norwegian Immigration, and other works.]

PORT CLARENCE, ALASKA, *June 29, 1895.*

SIR: In accordance with your instructions dated July 2, 1894, in which you say that "upon the last day of June of each year the superintendent will make out and mail to the general agent of education in Alaska an annual report of operations at the station," I have the honor to render an account of matters at the Teller Reindeer Station for the period beginning with August 6, 1894, and ending with the 30th of June, 1895. With it will be included a report of my journey to Lapland, and of the transportation of the Lapps to this place in 1894.

I left Madison, Wis., February 16, 1894, in accordance with your instructions, bound for Lapland, via Washington, for the purpose of securing the services of five Lapp families and their dogs, and transporting them to Alaska as herders of reindeer. These Lapps were in the first place to herd the reindeer belonging to the United States Government, and in the second place teach the natives of Alaska the art of herding reindeer.

Upon my arrival in Chicago the same day, I spent the day there and at once commenced inquiries into the cheapest and best way of transporting the Lapps and their dogs from Chicago to San Francisco. The result of my investigation on this point was reported to you on my arrival in Washington the 19th of the same month.

After receiving the necessary orders and letters of introduction, that were of great service to me, and aided me materially in making my mission successful, and after receiving $1,000 from you personally for defraying the necessary expenses of my journey, I started for New York on the morning of the 20th, where a ticket was bought the same day for Trondhjem, via Liverpool and Hull, England. I traveled by the White Star Line across the Atlantic, and by the Wilson Line across the North Sea. Trondhjem is the most northern point in Norway to which tickets can be bought at New York.

On account of the short time at my disposal—only two days between my appointment and my departure for Lapland—I did not have much opportunity to prepare any definite plan for my somewhat difficult

task, but by the time I reached New York I had made up my mind how to go to work.

The large majority of the people with whom I talked, and who claimed to be familiar with the circumstances in Lapland, insisted that my journey would be useless, claiming that the Lapps could not be induced to leave their firesides on the mountains. Personally, I was very hopeful, providing I could reach Lapland before the Lapps started on their summer wanderings and got scattered over all the mountains, so that it is almost impossible to find them or get them together into one place. I was aware that there was to be a Lapp market at Bosekop, about 70 miles southwest of North Cape, the 7th, 8th, and 9th of March, 1894, and to this market there would come hundreds of Lapps personally known to me for the purpose of selling reindeer meat, skins, reindeer thread, hair, shoes, antlers, etc. This market is held at fixed times in each year, and it had been one of the points which I visited while I was employed for several years by a large firm as buyer, and hence my acquaintance with many of the Lapps who congregate there.

To reach North Cape, in Norway, from New York in so short a time—fifteen to sixteen days—was hardly to be expected in this season of the year. I therefore telegraphed from New York to a commercial house in Hammerfest, asking it to make my coming and my errand known to the Lapps, if possible, before they met at the market, in order that they might begin to discuss the matter with their families at home and so be prepared to come to a decision. The wisdom of sending this telegram was afterwards demonstrated, and it saved me much travel and expense after I reached Lapland. Having made all my preparations I went on board the *Majestic* and at 6 o'clock on the 21st of February the steamer left New York with five hundred passengers on board.

The weather was fine for that season of the year, and on the 27th, at 12.45 p. m., Ireland was sighted. During the afternoon of the same day passengers and mail were landed at Queenstown, and the next morning at 8 o'clock we arrived in Liverpool. It took about four hours to land the passengers and their baggage, and two hours more were spent in getting through the custom-house. From the custom-house I went directly to the railroad station and took a train at once for Hull, where I arrived at 6 o'clock in the evening in a pouring rain. Half an hour later I was pacing the deck of the Wilson steamer *Juno*, and at 8 o'clock the same evening, February 28, this vessel left the dock and proceeded into the North Sea, bound for Trondhjem, Norway.

This season being unfavorable for tourists, there were few passengers. Had I been delayed a few hours across the Atlantic I would have had to wait a whole week in England for the next steamer to Norway, there being only weekly steamers during the winter. Thus I saw the waves of the Atlantic and those of the North Sea and crossed England all on the same day. The North Sea was rough, as usual in

this season of the year, but its breakers had no effect on me. Fortunately I have never been seasick. After three days we reached Bergen, Norway, on March 3, and remained there one day. I improved this time to call on the United States consul, Mr. Gade, and consulted him in regard to the speediest way of getting to the far north. The consul made some inquiries by telephone, and then advised me to continue my journey in the *Juno* to Trondhjem, whence a fast steamer would depart on the night of the 5th.

We left Bergen in the evening, and after stopping at a couple of places to land passengers and mail, March 4 at noon we were in the harbor of Christiansand, and the captain of the *Juno* informing me that we would not reach Trondhjem before late in the evening, which would give me no time to go to the city to arrange my affairs, I sent a telegram from Christiansand to the American consular agent requesting him to meet me in the harbor on the arrival of the *Juno*. When the ship entered the harbor of Trondhjem, about 10 o'clock in the evening, the consular agent met me on board. He kindly took my draft and had a part of the money sent to me a week later, when the advices had arrived by mail. The fact was, I had gained just a week on the mail that left New York at the same time that I did.

This arrangement made it possible for me to continue my journey northward. At midnight I went on board the steamer *Vesteraalen*, bound for Tromsöe. During the most of this trip we had snowstorms, but the steamer made good time, and we anchored in the harbor of Tromsöe on the 7th of March. Hitherto I had progressed even more rapidly than I had expected, but this was the first day of the Lapp market, 180 miles away. The journey from New York to Tromsöe had been made in fourteen days, the best record ever made, and it will probably not soon be equaled again, but I had traveled continuously without interruption. Tromsöe is located at 69° 40′ north longitude. Though unwilling, I was obliged to remain there one day, but I employed this time in hunting up more Swedish Lapps, who were there accidentally. They gave me but little comfort. They admitted that there were many Swedish Lapps who had lost all their reindeer on account of the hard crust of ice on the snow, which made it impossible for the animals to get their fodder. Many reindeer had perished from hunger. The same was the case at Karasoanda, where many Lapps were suffering, but the Swedish Lapps assured me that it would be useless to try to get them to go to America. That would be asking too much. They would suffer a great deal before they would leave their native heath.

On March 8 I took a steamer for Hammerfest, where I arrived on the 9th. The first thing I had to do there was to borrow some money, as the draft I had received in Washington had been left in Trondhjem. I found no trouble in getting what funds I needed, as I was well acquainted in Hammerfest. The cablegram which I sent from New York had been duly received, and Messrs. Feddersen & Nissen had

done everything possible to make my mission known among the Lapps, both through their agents in Lapland and at the Lapp market. Messrs. Feddersen & Nissen, the gentlemen to whom I had telegraphed from New York, gave me many valuable suggestions after they became better acquainted with the purpose of my journey. I was yet a long way from the Lapp market, but I telegraphed to some of my friends who were attending the market, and in this manner about thirty Lapps were persuaded to await my arrival and hold a conference with me personally. I left Hammerfest on the evening of the 11th on a small tugboat for Bosekop, where the Lapps had been waiting for me for two days. They received me as an old acquaintance. We chatted awhile about the result of the Bosekop market, about the prices of meats and skins, about the sleighing, etc. I told them news from America, and treated them to some delicacies that I had brought with me from New York. As they had never before tasted anything from New York, they looked upon this as a great compliment. The first day was spent in this manner, and the next day we met again to discuss Alaska and my errand. Two of the Lapps whom I had thought of interesting in my mission were absent, and I was told that they had gone to Russian Lapland to attend a Lapp market there.

In explanation of the slow progress I was making, it is necessary to state that the Lapps, like the reindeer, can not be crowded or forced in any way, and least of all in business matters. Time alone, and I had but little of it at my disposal, is able to produce a result. After the first meeting they seemed to look upon my proposition with favor, and I felt greatly encouraged for the next day. It was my purpose to engage only such Lapps as owned herds themselves, and not such as for any reason had lost their herds. A man who is not able to take care of his own property is not likely to be able to look after the property of others. On the afternoon of the 12th of March the Lapps met again, and I then told them all that I knew about Alaska and the reindeer enterprise there, and also restated my errand. I explained what kind of people I wanted. I informed them what their pay would be, that they would be transported free of cost, and described the details as fully as possible. During my talk to them they kept perfectly silent, and for a long time they seemed to be considering the matter, but no further progress was made that day. During the next four days the discussion was continued, and I had to answer hundreds of questions.

On the morning of the fifth day all the Lapps were ready to depart for their summer quarters. In the course of the night they had gathered their reindeer and were ready to start. It looked as though they would compel me to go to the mountains—that is, to Kantokeino, 120 English miles away—and continue the discussion there. I secured what seemed like a final opportunity to engage them in conversation. I then indicated to them that I would hire Lapps from some other place if they did not decide the matter at once, and so they would lose their chance

of making and saving some money. This was my last card. I had no doubt that the prospect of accumulating some money, which on their return could be deposited in a bank, would induce them to leave their old mountains. An empty sled passed, and I at once jumped into it and drove to the nearest station. I bid these stubborn people good-bye, but before doing so they agreed to send a man down from the mountains to meet me at Bosekop the 26th March, and bring me the result of their deliberations with their families, and I promised not to engage any other Lapps before that date.

In the meantime I went to Talvik, and beyond there to Stoe-Sandnoes and Tappeluft, to see some of the Lapps camping on the mountains in the vicinity. None of them could make up their minds at once to make a contract, nor did I want them to do so; I merely wanted to have them in reserve in case I failed to secure those I had already talked with at Bosekop.

On the 26th of March I was at the place agreed on, and on the same day two Lapps also arrived. I secured their services, and I at once made a contract with three Lapps, the two present having authority to sign for a third party, who was absent. Having secured these three, I looked upon my mission as a success, for the three men belonged to the best families of Kontotseino, and when they were willing to go to Alaska I was sure that it would be easy to get as many more as I wanted. On the 28th a third man came to make a contract, but on account of a lawsuit in regard to a sack of flour he was not certain that he could get away. I consulted the lensmand in Bosekop in reference to the sack of flour, but as he declined to act in the matter it became necessary for me to go to Hammerfest at once. There I secured the release of the Lapp and permission for him to emigrate, and I returned to Bosekop on the 1st of April. This Lapp then also signed the contract and went to the mountains to get ready for the journey, which was set for April 15. This last Lapp also had authority to sign for another one, and so I had now secured five in all. We agreed to meet on the 13th of April, as we would need a couple of days for the final preparation. I had now secured five families, and four of them were those that I had originally planned to get.

After completing the contracts I again went to Talvik to inform the Lapps there that I had already secured the required number, and that they did not need to give the matter any further attention. On this journey I received your letter requesting me to secure a sixth family, viz, a Roman Catholic, to be sent to a Roman Catholic station in Alaska and herd the reindeer there. But a Roman Catholic family of Lapps was more difficult to get than five more Protestant families, for nearly all the Lapps are Lutherans. I learned, however, that a Lapp boy had been adopted by a Roman Catholic missionary station at Altengaard, in the vicinity. The boy had got tired of the narrow limits of the missionary

station and had run away to be with the reindeer, and I at once secured him at a low price and took care of him until the other Lapps arrived.

From the 10th to the 13th of April I was busy getting ready to receive the Lapps. In company with those I had hired, there came one more family all ready for the journey. I thought it unfortunate to send the boy, who was only 18 years old, alone to the Roman Catholic station. He was hardly capable of handling a herd of reindeer, particularly in a strange country and among strange people, so I engaged this additional family to go with him. This family was the fifth that I had originally planned to hire. When they saw that other good and reliable people were willing to go, they concluded that there could be no doubt about the character of our enterprise.

After getting the baggage as dry as possible, it was all packed on the 14th of April, and on the 15th we went aboard the steamer *Nordjand*, and arrived in Hammerfest on the 16th. On this first day of our journey there was no end of music, singing, and tears. Some of the relations and friends of the Lapps had come down from the mountains to see them off. These relations and friends accompanied us to Hammerfest. We had to spend the 17th in Hammerfest waiting for a steamer.

The Lapps whom I had engaged and who were now with me on their way to Alaska were the following:

Names of the men.	Ages of men.	Names of their wives.	Ages of wives.	Names of the children.	Ages of children.
Per Aslaksen Rist	50	Left his wife in Lapland.			
Johan Speinsen Tornensis	35	Margrethe	28	Berit	[1]10
Aslak Larsen Somby	48	Britha	46	Berit Anne	[2]11
Mathis Aslaksen Eira	25	Berit	37	Aslek	4
Mikkel Josefsen Nakkila	32	Berit	24		
Samuel Johnsen Kemi	46	Kjersti	27	Karen	[1]9
Frederik Larsen	18				

[1] Months. [2] Years.

The Lapps do not like to leave their ancient homes. They are very conservative, devoted to the customs and manners of their fathers, and exceedingly fond of the fresh mountain air. They are also very cautious in all their business transactions. When we add to this the fact that they have frequently been deceived by persons who wanted them for exhibitions in foreign lands, it will readily be understood that it was no easy matter to secure them for far-off Alaska.

Cranks are to be found everywhere, and also among the Lapps. Such cranks think it their duty to meddle with everything that takes place, no matter whether it concerns them or not. I found such a crank among the Lapps, and he gave me much trouble. He took the position that a great mistake had been made by not consulting him. He was angry and went to the royal Norwegian officer, who was to witness our

contracts, and told him all sorts of yarns, and persuaded him that he ought not to legalize the contracts without sufficient guaranty that the contracts would be fulfilled. The crank argued that inasmuch as the Lapps had been swindled heretofore they were sure to be swindled this time. You know the result of this meddling. I had to telegraph to Consul Gade, in Bergen, and he advised me to cable to Washington. I did so, and received a satisfactory answer. Had I not received this answer in due time, the Lapps would certainly have broken their contracts and gone back to their mountains believing that all was humbug, only a little better concealed than is usually the case.

At 7 o'clock p. m. we all went on board the steamer *Vesteraalen*, bound for Trondhjem. From Hammerfest to Trondhjem I had obtained the best rates from the Vesteraalen Steamship Company, and from Trondhjem to New York, via Christiania, I had obtained the most favorable rates from the Thingvalla Steamship Company.

The journey from Hammerfest to Trondhjem took three days. The Lapps were very despondent, and I had all I could do to comfort them and restore their lost courage. On the 19th they crossed the Polar circle for the first time in their lives, and on the 20th we arrived in Trondhjem, where we remained two days. During this time the Lapps unpacked and dried their baggage, and here I settled my money matters with Mr. Claus Berg, our consular agent, bought tickets, and had my Lapps examined by the proper authorities. Their contracts were countersigned by the chief of police to prevent any annoyance in the future. Everything was in order the 23d of April, when we boarded a train for Christiania. It was the first experience of the Lapps on a railroad train, and they were naturally very anxious. Whenever the locomotive whistled they would seize hold of the seats with both hands; but when they found that the train moved as steadily as any reindeer pulkha on the mountains of Lapland they loosened their grips on the seats and began to talk about the ingenuity of man. They were astonished at the tunnels we passed through, and looked with wonderment at the broad fields and at the farmers who were plowing.

In the afternoon we reached an altitude of 2,155 feet above the level of the sea. Here we found plenty of snow, and where the ground was bare it was covered with reindeer moss. All the strange things the Lapps had seen had gradually made them forget their sadness, and the sight of the moss filled their hearts with joy. As the trains do not run in the night in Norway, we spent the night at Tonseth. The next day we continued our journey down through the valley of Glommen, and the Lapps spent the time admiring the new things. They looked at the rafts floating down the river, at the well-cultivated farms with their nice red and white houses, and watched the new passengers getting on and off the train at the stations. In the afternoon we changed cars at Hamar Station, and on the evening of the 24th of April we came to

Christiania, the capital of Norway, where we were met by a representative of the Thingvalla Steamship Line and by a friend of mine, who had been sent to me by Mr. Magnus Andersen, the editor of the Norsk Sjofartstidende. These gentlemen were of great help both to me and to the Lapps. During our stay in Christiania we were all, with the exception of the dogs, examined by a physician and pronounced well. Cages were bought for the dogs, and all our baggage was weighed and checked. We also procured tin cups and other necessary things for the journey, and half an hour before the time of sailing we were all on board the ship, ready, with about two hundred other passengers and emigrants, to sail for the New World.

On the 26th of April, at 2 o'clock in the afternoon, the Thingvalla ship *Island*, Captain Schjott commanding, steamed out of Christiania Harbor with the first company of Lapp emigrants on board. We had fine weather, and after an hour's sail we met another steamer of the same line coming from New York. The two ships exchanged greetings, and our vessel proceeded to Christiansand, where we arrived on the morning of the next day. Here we received the mail and a few more passengers for New York. In the course of the forenoon I here had an opportunity of sending a last greeting, together with letters, to our friends, and at 12 o'clock noon we proceeded into the North Sea.

Perhaps this would be the best place to express my thanks to many prominent men in Norway who were of great help to me on various occasions. I am under special obligations to the United States consul in Bergen, Mr. Gade; to the commercial house of Feddersen & Nissen, at Hammerfest; to Lensmand H. C. Borchgrevinck, at Alten, and to Capt. Magnus Andersen, the well-known successful commander of the *Viking* across the Atlantic. It will be remembered that Captain Andersen brought the *Viking* ship to the Columbian Exposition, in Chicago, and that he is the editor of the Norsk Sjofartstidende, in Christiania. All these gentlemen aided me materially in bringing my mission to a rapid and successful close.

We crossed the Atlantic slowly but safely. The Lapps were not seasick, but a couple of the women were slightly indisposed. On the other hand, the dogs suffered considerably, not only from seasickness but also on account of the warm atmosphere of the ship. Two of them were very sick for a couple of days, and one died and was buried in the largest of all graveyards, the Atlantic Ocean, on the 10th of May, at 8 o'clock in the forenoon. Captain Schjott gave our quadrupeds the liberty of the deck a few hours every day, and was very accommodating in every way. When we arrived in New York on the 12th of May, he placed us under special obligations by his willingness to serve us in every way possible.

In New York I expected to meet a gentleman who was to assume the care of the Lapps to San Francisco, Cal., but circumstances prevented

his making his appearance. I received a letter from Mr. William Hamilton, and a draft for money, with orders to proceed at once to Madison. In this letter I was informed that upon my arrival at Madison, Wis., Prof. Rasmus B. Anderson would take charge of the transportation from that point, and so it became necessary for me to hasten matters myself in New York as best I could, with the kind assistance of Captain Schjott. At 11 o'clock in the forenoon we were landed, and there was a running to and fro to get things into shape. The most difficult thing was to get the dogs removed from the ship, as these fellow-travelers of ours were not found in the list of passengers, and consequently did not come under the charge of the officers of Ellis Island. The dogs were a part of the baggage, and had to be taken through the custom-house.

We brought the dogs ashore for breeding purposes, but did not have the necessary certificates from the breeding station in Europe whence they came, for the simple reason that the dogs did not come from any breeding station, but from the mountains and snow fields of Lapland. By the assistance of a quick-witted broker, we got the dogs out of the custom-house by my signing a long document full of assurances, and this document was no doubt carefully preserved for future reference. It was a great relief to get this business out of the way, but then it came like a bolt of thunder out of a clear sky that the dogs could not be transported any farther as baggage, and so there was another running hither and thither, which ended in my taking the dogs to the express company and sending them by express, a matter of no slight expense, as you have seen from the statement of my account rendered to you a year ago, but there was no other way, and although the Lapps protested vociferously against being separated from their dogs, it could not be helped. At 6 o'clock in the afternoon, matters were sufficiently arranged so that I could begin to think of the Lapps. They had passed the necessary inspection at Ellis Island and had come to the city, where they were found in a hotel, at which we all got a refreshing supper. Then we went to the ferry and to the West Shore Railroad station, where we took the train at 8.30 in the evening, utterly exhausted from the heat and work of the day.

We bought second-class tickets from New York to Madison, Wis., at the ticket office of E. A. Johnson, in New York. But these tickets proved to be very defective, partly perhaps on account of the hurry in which they were issued, for transfer coupons lacked on several of them when we arrived in Chicago, and our only compensation for this extra expense and for taking second-class tickets was, that we arrived in Chicago four hours later than passengers who had left New York two hours earlier than we did and bought emigrant tickets. The trouble and annoyance are now forgotten, and so I will say no more about it, but keep the matter in remembrance until the next time. On Penticost Sunday, the 13th of May, we reached Buffalo. Here we changed cars

for Chicago, Ill., where all of us were vaccinated in accordance with a decision of the authorities. Our departure from Chicago was telegraphed to Prof. R. B. Anderson, at Madison, Wis., and on our arrival there he had provided temporary lodgings for the Lapps. After an absence of nearly three months, occupied during the whole time in traveling and caring for a lot of helpless human beings and animals, the writer again stood on the station platform in Madison pretty tired and exhausted. The dogs had arrived there the day before.

As my journey to Lapland had been made unexpectedly, and as I had no one to look after my private affairs, I needed a few days at Madison to settle my business and pack my goods for a removal to Alaska. The baggage of the Lapps had become musty, and so I arranged with Prof. R. B. Anderson to remain a few days in Madison, Wis. Arrangements were made to transport the Lapps by way of the Great Northern Railroad to Seattle, and thence by steamer to San Francisco, and as soon as we were ready to leave Madison the tickets were on hand and delivered to me. We were placed in a very comfortable so-called tourist car, where the Lapps were able to cook their own food and do as they pleased. On the evening of May 22 the train left St. Paul.

We expected to be in Seattle in a few days, but the floods in the Rocky Mountains were not anticipated, and hence we miscalculated. Meanwhile we made good progress until the afternoon of the 24th, when we arrived in Kalispell. The only misfortune we had had up to this time was the death of one of our dogs on the 23d. When we arrived at Kalispell we were told that we could not proceed before the next morning, on account of a washout, but when the next morning came we were told that we would have to wait until the following morning, and doubtless we would have heard this promise for a month if the passengers had not begun to insist on being sent back and transferred to another line. Trains continued to come in from the East, leave their passengers, and return, so that had this importation been continued the town would soon have become congested with people; but finally orders were received to go back to Harvard, which was done on the 26th of May.

During our stay at Kalispell we had the misfortune of having one of our best dogs stolen from us. One day the dogs had been taken out of their cages to be bathed, a matter which we attended to as often as possible. After bathing the dogs were brought back to the station and given their liberty for a short time. In the meantime it was necessary for me to go to town to secure provisions for my people, and on my return one of the dogs was missing. Inquiry was made through the town, but the dog was not found. The search had been abandoned and the Lapp was weeping over the loss of his dog when a small boy reported that he had seen a man and a black dog go westward on a hand car. We at once went to find the foreman of the railroad section, and from him

we learned that no hand car belonging to the section had that day gone west of the town, but that a hand car had been in from the nearest section house. Having one more witness that a dog had been seen on a car that day determined me to try and catch the thief. This was accomplished with a borrowed hand car and four men and a Lapp, as no train or other means of transportation could be secured. It was already dark in the evening before we had gone the 20 miles and the section house was reached, where we found all hands playing cards, and after a few indirect questions had been answered the dog was found to be in the house. On a definite demand for the stolen dog it was produced. The thief made the excuse that he had bought the dog of a boy for 25 cents, and as we had no time to remain there and bring suit we let the fellow off after giving him some fright, so that he will henceforth probably abstain from going off with another man's dog.

At 11 o'clock in the evening we came to the railroad station, and left there the next morning for Harvard, where we arrived in the afternoon, and spent the night there until the 27th, when we continued to Helena, Mont. We had to spend the night again at Helena, and there we were transferred to the Northern Pacific Railroad the next day. After conflict with the agent at Helena, he being unwilling to furnish food for the Lapps, we were taken into another car and proceeded to Horse Plains, arriving there on the 28th. Here we had to stop again on account of washouts. The washouts were not repaired until the 30th, when we started for Herron Station, a few miles west. There we stopped again until the 31st of May, when we proceeded a few miles and reached Clarks Falls in the evening; thence we proceeded again the same night, and advanced steadily, though slowly, until we finally reached Seattle, Wash., the 1st of June, late in the evening. I pass over all the annoyances, disputes, and trouble on this journey. I tried in every way possible to secure provisions for the Lapps and dogs from the railroad company, but was only partially successful.

The 2d of June we were transported from the railroad station to the steamer *Umatilla*, destined for San Francisco via Victoria. The weather was fair, but one of the Lapps was quite sick. He was not seasick, but apparently suffering from the heat, dust, and atmosphere of the railroad car, which doubtless had had their influence upon the lungs accustomed to the fresh mountain air. In Victoria I procured some medicine, and his health was much better when we arrived in San Francisco the 4th of June, having been fifteen days on the way from Madison, Wis.

As indicated by your letter of May 1 from Port Townsend, I telegraphed from Seattle to Messrs. S. Foster & Co., No. 28 California street, San Francisco, and announced our departure. Accordingly, a gentleman met us on the dock and brought us to a comfortable hotel called Sailors' Home. The brig *W. H. Meyer*, which was to take us to Alaska, being under repairs on our arrival, we could not go on board

at once, as suggested by you, but had to remain ashore. Better quarters than those we had could not have been secured in San Francisco. Both the location and the management made it impossible for the Lapps to get out into bad company.

During our stay there my time was entirely occupied in selecting supplies and provisions which we were to take with us, taking charge of the Lapps, and in looking after other necessary things, so that I did not have much time to look after my wards, but Captain Staple, the manager of the Sailors' Home, cheerfully took charge of the Lapps, showed them the city, and kept them away from dissipation. During our sojourn in San Francisco one of our Lapps was married in the chapel of the Sailors' Home by Rev. T. L. Brevig. The marriage ceremony should have taken place at Bosekop, Norway, before our departure, but was postponed on account of the limited time. The Lapp in question was delayed on his journey from the mountains on account of the bad roads. Then it was decided that the marriage should be performed at Madison, but difficulties also hindered us there, and so the wedding was finally celebrated in San Francisco.

When the vessel was ready to sail all the Lapps went on board. This was on the 16th of June, and the vessel was to start on the 17th, but on that very day the captain and the vessel owner received information that another of his vessels, which had been out on a whaling expedition in the Arctic Ocean, had been wrecked. This necessitated the captain's presence in San Francisco to equip another vessel to take the place of the wrecked one and to find another captain, and thus our journey was postponed another day. Finally, on the 18th of June, we were all assembled on board the brig *W. H. Meyer*, Captain Holland commanding, and bound for Port Clarence, Alaska, via St. Lawrence Island, where Mr. Gamble and company were to be left.

I here seize the opportunity of expressing our most hearty thanks to Prof. R. B. Anderson, of Madison, Wis.; to Captain Staple, superintendent of the Sailors' Home, San Francisco, and to Messrs. S. Foster & Co., No. 28 California street, San Francisco, for their kind assistance and advice during our sojourn in these places.

The ship first sailed in a northwesterly direction until we were only 150 miles from Honolulu; then we turned the prow to the west and northwest until we were off the Sandwich Islands, where we had a perfect calm for a couple of days. Then we sailed to the northwest a couple of days and then due north until we came in the vicinity of Fox Islands, where heavy fogs hindered us from sailing between the islands; but after lying still a few days the captain decided, on the 22d of July, to sail through the so-called Seventy-two Pass. He had not seen land, but had taken an observation. He was successful, and when we had passed the islands the fog lifted so that we could see them behind us. Soon the fog again became so dense that we could see nothing for three whole days, excepting that we got a glimpse of St.

Mathews Island. During the night between the 27th and 28th of July we came near running ashore on the west side of St. Lawrence Island. During the darkness of the night the ship had drifted in among the breakers before we became aware of our danger. We were scarcely a hairbreadth from being wrecked against the rocks of St. Lawrence. We were most fortunate in escaping this danger. The next day the water was calm, and two boats filled with the first Alaska Eskimo we had ever seen came on board. On the night of the 29th a stiff south breeze was blowing. The same wind favored us the next day, and this brought us past Kings Island and within Point Spencer, in Port Clarence, where we anchored for the night. Next day we again weighed anchor and sailed to the reindeer station, where Mr. and Mrs. Lopp came on board and invited us to come ashore, an invitation which we were more than happy to accept after a tedious journey of forty-one days in a most uncomfortable ship. We went on board again in the evening, and we were not landed until the 31st of July.

On our arrival at the station, both Rev. T. L. Brevig and the writer and his family were most kindly received by Mr. and Mrs. W. T. Lopp, and everything possible was done to help us become familiar with our new surroundings. No pains were spared to satisfy our immediate wants, even though Mr. and Mrs. W. T. Lopp had to make a sacrifice of their own comforts.

There was no formal assuming of the affairs of the station, but it may be said in general terms that matters were under our control from the 6th of August, and one of the Lapps, together with two apprentices, were sent out with the herd. The other Lapps were set to work to make salmon seines, and in the course of a few days we had five of them busy securing fresh fish for our tables. The dried goods of last year had been consumed and the goods for this year came with the *W. H. Meyer.* All the resources had been exhausted, so that it was necessary to begin using the provisions we had brought at once. In accordance with your instructions, dated the 27th of July, 109 reindeer (92 females, 8 bucks, 5 steers, and 4 sled deer) were taken out of the herd in August and marked and delivered to Mr. W. T. Lopp to be transported to the American Missionary Association mission station at Cape Prince of Wales.

In addition to these 109 deer, 10 females, belonging to apprentices from the same mission station, were taken, marked, and sent. These apprentices returned to Cape Prince of Wales Station. Your instructions called for only 100 reindeer, but after the separation 9 of the Government herd were mixed with the mission herd and could not afterwards be separated, since the fawns were in the latter herd. As there was no enumeration of the herd or any formal delivery of it to us, I took a census of it as soon as I found the opportunity. By adding the reindeer that had been taken from the herd in the summer and those that were lost after I arrived, I found the actual number of reindeer in the herd on the 6th of August, 1894. What has become of

all these reindeer the following table, being the record kept at the station, will show:

Reindeer account.

Date.		Dr.				Cr.			
		Male.	Female.	Fawns.	Total.	Male.	Female.	Fawns.	Total.
1894.									
Aug. 6	Received from W. T. Lopp					79	311	119	509
8	Delivered to the American station at Cape Prince of Wales.	17	80	12	109				
8	Given to apprentices:								
	Metex ite		2						
	So kwee na		2						
	Ki year grick		2						
	Ki ok		2						
	Oeteune		2		10				
30	Marked to other apprentices who stayed at the station.		18		18				
Sept. 6	Received from Sheldon Jackson					27	4	2	33
30	Died and killed	3	6	5	14				
	Balance	86	201	102	389				
	Total	106	315	119	440	106	315	119	542
Oct. 1	Number of deer in herd					86	201	102	389
11	Bought from O kwood let						2		2
12	Bought from apprentice, So whe na sie						2		2
31	Died and killed	7	3	3	13				
31	Given to the manager	1			1				
	Balance	78	202	99	379				
	Total	86	205	102	393	86	205	102	393
1895.									
Jan. 4	Reindeer in herd this day belonging to Government.					78	202	99	379
31	Delivered to Eskimo apprentice Antisarlook as a loan.	21	70	9	100				
31	Marked to apprentice		13		13				
Mar. 31	Died and killed	5	1	90	6				
	Balance	52	118		260				
	Total	78	202	99	379	78	202	99	379
Apr. 1	Reindeer in herd belonging to Government					52	118	90	260
June 30	Died and killed	2		1	3				
	Fawns born							118	118
	Balance	50	118	207	375				
	Total	52	118	208	378	52	118	208	378
	In herd this day belonging to the Government					50	116	207	375

These 375 animals will be carried over to a new account, in which the fawns, previously named, will be divided and placed in their proper columns as males and females. In the herd on the 30th of June, 1895, I found belonging to the United States Government, 90 males, 167 females, 118 fawns; belonging to apprentices, 12 males, 12 fawns; making a total of 90 males, 179 females, 130 fawns.

Extract from quarterly account.

Date.	Character of disease and cause of butchering.	Male.	Female.	Fawns.	Total.
1894.					
Aug. 6	Killed; swelling in feet, unable to work			1	
8	....do			1	
8	Killed; broke his leg while running			1	
15	Strayed; afterwards shot and stolen by Eskimo from Cape Prince of Wales		1		
24	Killed; could not keep up with herd			1	
29	Killed; liver and lung disease			1	
29	Died; liver and lung disease		2		

Extract from quarterly account—Continued.

Date.	Character of disease and cause of butchering.	Male.	Female.	Fawns.	Total.
1894.					
Sept. 13	Killed; 3 ribs broken in a fight	1			
14	Stolen by Eskimo; only head and antlers found		1		
22	Died; liver and lung disease		1		
29	Killed; liver and lung disease	2	1		
	Total	3	6	5	14
Oct. 5	Died; liver and lung disease		1	1	
19	do		1		
19	do		1		
20	do	1			
Nov. 15	Died; broke his neck	1			
17	Killed; broke 2 legs			1	
27	Sold to Laps for food	1			
Dec. 19	Killed to feed herders	2			
21	do	2			
	Total	7	3	2	13
1895.					
Jan. 3	Died; liver and lung disease			1	
Feb. 15	Died; froze to death on an expedition	1			
23	Killed; liver disease	1			
28	Died; liver disease	1			
Mar. 20	Killed	1			
26	Stolen; shot by Aksegrook	1			
	Total	5		1	6
Apr. 3	Killed; broke his leg in driving	1			
9	Died fighting			1	
17	Died; lung disease	1			
	Total	2		1	3
	Grand total				36

As you will see from the above tables, we have killed and lost 36 deer during the past year. This number is not small considering the size of the herd, but it was the best result we could produce. As you will also perceive, there was a severe disease among the deer last autumn, a liver and lung epidemic taking off 15 of 36 deer lost or killed. The disease was of short duration. Nothing was observed before the deer suddenly left the herd and wandered off by themselves without taking any nourishment, and death followed a day or two later. All the remedies we could think of were applied, but absolutely without benefiting the diseased animals. The herd was changed to new pastures, milking was stopped, but those that were attacked by the disease died all the same. The same disease is also known in Lapland, but no remedy is known there. One of our Lapps had to kill over 90 reindeer in his herd in Lapland in a single autumn on account of this same disease. At the outbreak of the disease it seemed that we would lose many more animals than we actually did. It is to be hoped that we will escape this danger in the future, for we think we have discovered the cause, a matter which I will not discuss at this time, as we have not gathered a sufficient amount of facts. When we subtract these 15 animals and the 6 killed for food, the loss is 15 per cent, which is more than is calculated in Lapland in herds of the same size as ours.

The annual loss in private and other herds in Alaska does not exceed

8 per cent, while the Government herd will always have a higher percentage of loss as long as it is managed for the purpose of education, for such a herd can never be handled so carefully as a private herd. As long as it is necessary to have apprentices in connection with the herd, they must have an opportunity of practicing the various methods of handling the animals in connection with lassoing, taming, driving, etc. This, of course, causes more or less disturbance, much more running to and fro of the herd, than if it were private. A private herd is left undisturbed all of the time, hence there is less of broken backs and other injuries. These disadvantages can not be avoided, for it is necessary for the apprentices to practice if they are to make any progress. In the account you will also notice that 3 animals were stolen by the Eskimos. I was successful in capturing only one of these thieves, to wit, an Eskimo by the name of Axsegroak, from Nook, the nearest village east of the station. On the 26th of March, during my absence on a journey to Golovin Bay, he shot one of our deer. It had been set at liberty by one of our apprentices while returning home from Antisarlook herd on account of weariness, about 4 miles east from the station. They were unable to bring it home before the herd was gone, so left it so that it could be united with it on their return home. Our people looked after the animal several times, and were constantly aware of its whereabouts.

Although it does not belong to the chapter, I will take the liberty of relating here how we captured and punished this thief. On my return, the 31st of March, it was soon reported that a reindeer had been shot by some Eskimos or others. But no one knew or was willing to know who the thief was, the Eskimos being, as a class, great cowards; so that when one of them has done anything wrong the others dare not say anything about it for fear of being themselves shot by the criminal. For this reason they did not dare report the stealing of the reindeer, but simply stated that it had been shot and eaten; but I resolved to get this matter straightened out, and to this end I instituted direct and indirect investigation, the only result of which was that our apprentices knew who the thief was but did not dare to tell the truth. On one of my daily visits in the houses of the apprentices and herders, all the apprentices were asked whether they would not tell me the circumstances pertaining to this matter. I received no answer from any of them, but one of the wives, who stood near the stove, made some comprehensible signs and nods with her head toward a man who sat in a corner of the room. A single moment's consideration convinced me that the thief was sitting in the corner, on which account I immediately addressed him and asked him in very positive terms whether he had shot our reindeer, to which he hesitatingly nodded with his head without opening his lips. He apparently did not think it worth his while to say yes.

I considered the matter of great importance, as this was the first

stealing of reindeer of which I had obtained proof, and I decided to establish an example for future thieves. With this in mind I made it clear to him, perhaps using rather strong language, that he was a thief and much more; but he, of course, did not understand anything of what I had said, but his courage failed him when I made motions indicating that he would have the pleasure of trying a pair of handcuffs, upon which I left the house in order to carry out my threat. I did not go after the handcuffs, but directed my steps to Rev. Brevig, to tell him of the discovery I had made. We had not discussed the matter very much before the culprit came, seated himself on the floor, and gazing at me with an inquiring look, he said, "Me no good," and as he received no answer he took his knife from its sheath and placed it before his breast to kill himself on the spot; at least, he looked that way. But when Rev. Brevig and myself talked to him, he was persuaded to abstain from the execution of this threat, and he then asked whether we wanted him to go home and take his life there. We assured him that that was not what we wanted. We sent after one of our apprentices, who understands English, and, employing him as our interpreter, we delivered a reprimand to the Eskimo and then began questioning him in regard to the details.

From this examination it appeared that he had nothing to eat; that he was about dying from starvation when one of the reindeer from the station was feeding near his house; that ten of his neighbors helped him to eat the meat. He was told that to steal reindeer was just as wrong as to steal from another man's winter provisions, which the Eskimo regard as a very great crime. In regard to his starving to death, we told him that he well knew that we would not permit any good and honest needy person to suffer, a fact of which we had given ample evidence. Then we gave him an account of what was done with thieves among the white, civilized people. There thieves were incarcerated and punished. Then the Eskimo burst into tears. He confessed his weakness and admitted that he was not liked by the other Eskimo, not even by his own mother, and that the best thing for him now would be to end his miserable life. It may also be added in regard to this person, that he was looked upon as a black sheep among the Eskimo who frequently had warned him in regard to Nanugak, the thug, who last spring was shot by another Eskimo about 400 yards from our station.

I was told that Axsegroak and Nanugak were the two meanest fellows in this locality. Both of them employed the same tactics; that is, frightened the other Eskimos, and in that way made them do just as they pleased. They took this way of getting their living easily. Both of them were lazy and did not care to work for their living. We advised this man to be industrious, honest, and good, in which case he would be liked both by his mother and by the other Eskimos, and all would then do everything possible to help him along in the world. The fact that ten other Eskimos had helped him eat the meat without doing any-

SKINNING REINDEER.
Photograph by William Hamilton.

thing about it brought me to the conclusion that all who had had a share in it ought to pay for it. I rendered a decision as seriously as a judge. My verdict was that everybody who had eaten of the stolen deer should pay one fox skin, and that the reindeer skin should be brought to the station. The Eskimo breathed easier when he heard my decision, and when he was told that he might now start for home and inform his companions in regard to the result of the stealing, and that Oomalik (superintendent) was fearfully angry on account of this event, he did not need to be told twice, but started off like a whipped dog. The next day he returned, bringing with him the reindeer skin and a fox skin and a couple of his guests, one of whom understood a little English.

The year before he had been in an Eskimo show on a trip in the States. My verdict was repeated to them and a second reprimand was delivered, whereupon we gave them something to eat and let them go home. During the following two weeks all the guilty parties, nine in all, brought me a white fox skin apiece. Two were permitted to contribute one fox skin together, as they were very poor and it being all they had. Of course this was only a small fine, but it was felt to be severe by these people, who hardly know what to do to satisfy their empty stomachs, but it was regarded as the right thing to do to be severe in punishing the first offense. This same Axsegroak found two reindeer from Antisarlak's herd roaming over the mountains south of Port Clarence. He could easily have shot and eaten both of these animals without any risk of discovery, as he lived in a tent with his family far from any other Eskimos, but he came to the station, and relating what he had seen got his reward for doing so.

A week after we had assumed the management of the herd we took it about 3 miles east of the station and a fence was built near a small brook, afterwards called Pen Creek, and the Lapps and the apprentices were sent out to camp there. Since that time the herd and the camp have been moved sixteen times. The dates of the various movings you will doubtless find recorded in the log book, but I will here state that camps Nos. 1, 2, and 3 are the autumn camps down to November; No. 4 is a winter camp until the middle of March, and the other twelve from that time to date. The pastures examined in this connection vary in quality more or less, the best ones being Nos. 8, 10, 11, 12; that is to say, on the south side of Goweerook River. Even better pastures with dry, hard ground have possibly been found on the south side of Grantley Harbor and on the southeast side of Port Clarence. It is doubtless one of the best pastures to be found in this vicinity. The purpose of moving so frequently was, first, to give the herd change of pastures; second, to examine and find the best pastures; third, to make the reindeer acquainted in a larger stretch of country so that they would not so easily get lost in case some of them should happen to go astray. A reindeer would more easily find its way back to the herd if it came to a familiar place where it had been before. Fourth, and not least,

to train the apprentices in moving and in nomadic life, of which more hereafter. The moving in the spring was of course done for the purpose of bringing the herd to a place where the females could as comfortably as possible drop their fawns. This place had been selected in the course of the winter.

The first thing I did was to send the Lapps in different directions to make themselves acquainted with the locality and with the pastures before snow fall, and when I had acquainted myself in regard to the conditions of the wind and weather, I decided that the herd ought to be kept near the station at the time of dropping the fawns. On the 5th of January I set out with five reindeer east of the station to find a suitable place for the cows to bear their young. I chose the coldest part of the winter in order that I might be the better able to judge of the condition of the various places. The first day we drove to Goweerook village, about 45 miles distant. There we spent the night, and the following day we drove in different directions, but continually farther up the Goweerook Valley until we reached a place about 10 miles beyond the Eskimo habitation, and from there we returned to the station. We spent two nights in the snow banks and five nights in Eskimo tents, and we found what we sought, to wit, a sheltered place with good pasture. We arrived at the station the 13th of January.

In the course of the winter the herd was scattered only once. This was the night between the 7th and 8th of February, when a terrific storm from the north raged so violently that no human being could be out in it. On the morning of the 8th only 20 of the reindeer were found to have been able to resist the storm. These were all tame sled deer. None of the others were to be found, and after eight men, who in the morning had gone out in different directions to search for them, returned to the camp at noon, the result was that only uncertain traces could be found in the snow south of the camp; and when two men again went out to follow the footprints the herd was met driven by five Eskimos toward the camp. The whole herd had yielded to the power of the storm and had started off in the same direction as the wind. It had wandered across the ice to the south part of Grantley Harbor to the vicinity of the village, where the Eskimos saw the animals feeding in the morning, and began to drive them back, meeting our men on the way.

We began training the deer in hauling sleds before the snow fell. All but one of the deer which had been used the previous winter as sled deer, had been sent with the mission herd to Cape Prince of Wales. The one we had left was an old animal which we afterwards discovered was able to live on corn meal; that is to say, it was one of the animals which Miner W. Bruce had been experimenting with in this direction. After making this discovery, this animal was called the "Corn Meal Sack," and it is at present in the Antisarlook herd. About the time the snow fell in sufficient amount to give us sleighing, we had 5 reindeer that

could be used as sled deer, and we continued training the animals during the winter, so that there are now 27 trained animals in the herd. We have kept from 8 to 17 of these continually at the station from the 3d of November, 1894, to the 16th of June, 1895. These animals have been employed every working day for bringing fuel and lumber to the station. They have been fed on moss, and had their night quarters in a shed built last fall for that purpose, until the middle of February, when the moss gathered last fall gave out. Since that time they have been tethered in a pasture every evening. This involved a good deal of work, as the animals had to be tethered 3 or 4 miles from the station, and the fuel and lumber had to be brought from 5 to 10 miles from the opposite side of the station.

There is no moss to be found nearer than 3 to 4 miles in any direction, from the fact that the herd, unfortunately, had been kept for a couple of years pasturing in the immediate vicinity of the station and had consumed all the reindeer moss, if there ever was any. We often tried to feed the reindeer in new ways, since we at once found that the Eskimos did not have, or were not able and would not for a long time be able, to secure any more corn meal than could find place in their own empty stomachs.

So many animals being needed for daily use, and these having to be changed every three or four weeks, the beginners not being able to stand the prolonged, steady work, it became necessary to train a few 2-year-olds after all the older ones had been brought into service. This practice is not to be recommended, but the Siberian reindeer being somewhat larger and stronger than 2-year-olds in Lapland, and they being handled with the greatest care, I do not think they were damaged in any way. Of the animals trained and in the process of training, 4 had to be or were killed, as you will see from the quarterly statement, and the reason for this was that they were left to the apprentices for practice. As a rule, about 10 per cent of the animals that are being trained will be lost, no matter how skillfully the work is done. Last fall some of the animals were also trained to carry pack saddles. They were used, and are still being used, in transporting the provisions from one camp to another.

The time for dropping the fawns comes one month earlier here than in Lapland. This circumstance, in connection with the fact that the weather is colder all the year around, makes it more difficult to save the fawns here than there. We had been very successful in the change of quarters for the herd during the most important season. A daybook kept by one of the Lapps shows fine weather, continuous calm, while we here at the station were constantly exposed to a cold, north wind, with occasional sleet. In Lapland the fawns are dropped from the beginning to the 10th of May, while here the first were born on the 10th of April and the last on the 16th of June.

It had already been noticed last fall that the dropping of the fawns

here occurred earlier than in Lapland. Hence, every effort was made to arrange for the pairing later than formerly, and I believe we gained a few days; and, which is of great importance, in the month of April. From the report of the first year from this station, it is noticed that the fawns were dropped between the 13th of April and the 3d of June, but we were unable to accomplish much in this direction last year, but next fall another effort will be made to regulate this matter if no obstacles interfere. It was stated last fall, by people who were supposed to know something about herding reindeer, that if we continued in this manner the herd would not be able to live through the winter; but we took but little notice of such predictions, as our Lapps were not infants in the art of herding reindeer, but men who had seen and handled reindeer more than one year.

The reindeer here are more wild and unmanageable than those in Lapland. The reason for this is probably the fact that the Siberians do not train the animals for sled deer, but let them go as they please, simply watching them and keeping them together. In Lapland the reindeer may be seen pasturing among the tents, or perhaps better, a herd of reindeer may be seen with tents in the midst of them. Dogs, men, and deer are mixed together, and it is to be hoped that we will be able to domesticate this Alaskan herd in the same manner by continually working with them and letting the herders, the apprentices, and the dogs stay with them.

From the extract of the reindeer account it will also be seen that at the beginning of the time of calving there were 118 females, 52 males, and 90 fawns belonging to the station; that the increase this year was 118. From this statement it may appear to you that we did not lose any fawns, but this is not the case. In the first place, one cow had two fawns, one of which had to be killed, as the reindeer cows are not willing to recognize twins, but she chooses one of them, feeds and takes care of it, while the other is invariably hooked and kicked and denied all maternal care and nourishment.

Apparently the Eskimos and the reindeer are very much alike in this respect. I was told that the Eskimo also, under similar circumstances, choose one and kill the other of the twins. This is not the only fawn that died. There were more of them, and how it happens that we have as many living fawns in the herd to-day as there are grown-up females is to be explained by relating one of the many methods by which an attempt is made to force the increase of the herd in Lapland. One more fawn is one more reindeer, and one more reindeer is money to the Laplander; hence, many experiments are made in this direction. It is estimated that under ordinary circumstances there must be more fawns than there are grown-up females, and to produce this result some of the fawns that are only 5 to 6 months old are paired. The most of the fawns dropped by these young heifers die, but some of them are saved by careful treatment, both at the time of their birth

MILKING REINDEER.
Photograph by W. T. Lopp.

and later. Some of these fawns are expected to be saved and so take the place of the deceased fawns dropped by mature mothers. We secured this result this year by the aid of the male reindeers which we asked for last fall, and which you landed here the 1st of September, and, to use an expression of the Lapps here, we may say that the fawning and increase has been "barri"—that is, successful. The reindeer are always called fawns until they have passed their second birthday (1 year old).

Last fall we built a fence and made a pen, and then we began milking. This was a most difficult task, as many of the cows had never been milked, and those that had been milked were so afraid of undergoing this operation again that when the lassoing began they started off on a full run, and some of them leaped over the fence. This dread of lassoing and milking was caused by the manner in which they had heretofore been handled during this process. They had been thrown to the ground and two or three men had held them down, lying on top of them while they were being milked. No wonder that such barbarism should frighten the animals. It took a long time before we could get the herd quieted down during the milking, and when the season was over there were only three cows that allowed themselves to be caught without lassoing and stood still during the milking without being held. Still I considered this a satisfactory result for the milking of the first fall.

The reindeer are milked only in the fall, after the fawns have been weaned. From the milk we made cheese. Some of the milk was evaporated to be used in the winter, and although the milking ceased early in the season, the Lapps still had cheese and butter for their bread and milk for their coffee in the middle of March. Our apprentices were altogether too lazy to milk, and consequently they had neither cheese nor milk to use.

We have had but little trouble in protecting the herd from the Eskimo dogs. Only once or twice did they give us any annoyance last fall, and that was before the herd was moved away from the station. But they were driven away by the Lapps' dogs on guard, and from that time we have never seen them approach the herd. On the other hand, we have been somewhat annoyed by the sharp teeth and empty stomachs of the Eskimo dogs in connection with the sled deer which were constantly kept near the station. We had kept the dogs away by threats and sticks, excepting in one case, where a dog was killed by the knife of a Laplander while he was taking care of the sled deer. The dogs in the nearest village are by this time so accustomed to the reindeer that they never attack them, although we have driven directly in front of their noses every day during the whole winter. In the beginning of last autumn there were many wild cries and just as many conflicts between the Lapps with their great knives and the dogs with their sharp teeth. The Lapps were always victorious. On account of their

constant defeat and torn skins, the Eskimo dogs surrendered and have made no more attacks. In defense of his sled deer against wolves or dogs, the Laplander always uses his knife, which is 10 to 12 inches long, a formidable weapon, and he defends himself in the following manner:

As soon as danger is perceived, the Lapp leaps out of the sled and runs to the reindeer, throws them down with the back on the ground, straddles them, holding their heads erect. In this position the animals can not get up. The Lapp holds the head of the reindeer with his left hand, and with the knife in his right hand he is ready for battle. He hews to the right and to the left, and one dog after the other runs away howling with wounds in his skin or even in his flesh. The matter continues in this manner until the number of animals becomes so small that they dare not approach their would-be victim, when the reindeer are released. In less than a second they rise to their feet again, the Lapp leaps into his sled, and only a cloud of snow tells the remaining enemies in which direction the intended victim has gone. In case he is pursued, the process is repeated until all the foes, howling or limping, have become unfit for any further pursuit. Our Lapps tell me that if only one man meets a dozen strong Eskimo dogs that have not before seen a reindeer, he will need all his strength and skill to defend a couple of animals.

With a little care and good sense on the part of the herders there is no danger whatever in regard to reindeer thriving and increasing in Alaska; for, in places where the herds are kept, the dogs soon become accustomed to the sight of the reindeer and will not molest them.

In connection with provisions, we took only nine barrels of salted corned beef with us from San Francisco to be used by the Lapps, but as two more families than expected remained with us at this station, the supply of meat was too small; and to mend this, three reindeer were killed just before Christmas, and the meat was divided and distributed, together with the corned beef, among the Lapps. One reindeer was also killed to divide among the apprentices. One animal was taken and killed by the superintendent, an account of which will be made this summer. An account will also be made of a reindeer that had a little blemish and was sold to the Lapps for food; thus, the number of reindeer killed for food was 6, and all these were males.

If it be true, as reported by whalers, that the provisions for the station will arrive this year by the same brig (*W. H. Meyer*), it will doubtless be long before it gets here, in which case it will be necessary to kill more reindeer for food, as we have no meat left from last year's supply for the July distribution, which takes place the 4th of July.

In accordance with your instructions that the tongues of the animals killed should be prepared for market, the tongues of the 5 reindeer killed were smoked; but the tongues of the 6 that died, or were sick and killed, were not prepared in this way, but together with the rest of the meat, they were appropriated to the stomachs of the apprentices, in which market there is always a large demand for such things.

LAPPS AT TELLER REINDEER STATION, ALASKA.

Photograph by William Hamilton.

The antlers which have been shed have been collected, and await the arrival of the apparatus for making glue. The herd has constantly been in excellent condition, and at this writing the new antlers are from 12 to 20 inches long, the best possible evidence of thrift.

It may be stated here that, taking all the circumstances into consideration, the wintering of the herd and particularly the increase have been entirely successful.

HERDERS AND APPRENTICES.

As you doubtless observed during your visit here last fall, our Lapp herders did not receive the warmest welcome from the people who are supposed to have influence among the Eskimos. It may be stated that the importation of Lapps was the most sensible measure that could have been adopted in connection with the reindeer enterprise in Alaska, for in this, as in all other things, a good beginning must be made if the end is to be good. The necessity of importing Lapps and the improvements thereby secured will be plain to you and to anyone who will take the trouble to read this report. The dissatisfaction was expressed and shown distinctly on every occasion. It was soon learned that the dissatisfaction and the variety of stories concerning the Lapps had spread among the Eskimos. This fact was plain, from many expressions made by the apprentices. It became necessary to make it clear, both to the apprentices and to the other Eskimos, that the Lapps were an intelligent and skilled people, both as regards taking care of reindeer and as to other things.

There was some anxiety on account of these strange relations which had sprung up without any cause whatever, and I was uncertain as to what it might lead to in the long run. Good relations between the herders and the apprentices was of paramount importance in securing a good result, and such a good understanding had to be brought about even if one of the sides had to make some sacrifice. When the Lapps had become informed in regard to the cause of this strange relation and its want of respect for them as if they were incapable and useless, it was made clear to them that the only way to gain the respect of the Eskimos was to demonstrate their superiority in fact, and they lost no opportunity of showing these people how superior they were in every respect. I am glad to be able to report that the relations very rapidly improved, particularly between the Lapps and apprentices, and the feelings between them have grown better day by day. The apprentices, at least most of them, have long since discovered their inferiority and seen how much they have to learn from these people. We have now reached a point where no apprentice undertakes to do anything before he has consulted one of the Lapps, so far as the languages make it possible.

The relations between the Lapps and outsiders are also pleasant, for the Lapps have often given valuable assistance and pointed out how

this thing or that ought to be done. They have undertaken to treat the natives as grown people treat children, and nobody will this year succeed in filling the heads of the Eskimos with stories about the Lapps, and the only outsiders among the Eskimos who still believe themselves to be superior to all others, not only to the Lapps, are the people from Cape Prince of Wales who occasionally have to come here with their seal skins and other things to exchange them for ammunition and provisions. They show by their conduct that they regard themselves as superior, but the only thing in which they are regarded as being superior and in which they actually excel all others is begging. They have studied completely the various kinds of beggars' tricks, and practice them both orally and in writing. The Lapps have occasionally been deceived by the lamentations and tricks of these people, but their dishonesty has usually been detected, and when the dishonesty has been discovered, then neither the Lapps nor the rest of us understand a word they say, this being the best way of getting rid of them. Usually they have received something to eat, and their hypocrisy has been used as the source of amusement.

I am very happy to say that the Lapps have hitherto conducted themselves most excellently, and have submitted with alacrity to the rules and regulations made for them, rules and regulations which they have never had to submit to heretofore. The only thing with which they have expressed any dissatisfaction is that they have not received as much reindeer meat as they would like.

The Lapps have certainly done everything that they possibly could, not only in taking care of but also in instructing the apprentices. So far as the language has permitted, they have always been willing to explain why this thing or that had to be done in this way or that way, and why things should be done at a certain time. This applied both to herding, to milking, to driving, to training, to the making of sleds, harnesses, saddles, skees, cheese, tanning and the preparation of skins, and to the proper use of reindeer hair, antlers, etc. When we arrived at the station it was assumed, both by the Eskimos and by the white men at the station, that reindeer skins could not be tanned or prepared so as to be made waterproof, and that people would always have to depend upon the seal for their waterproof boots. The opposite has now been demonstrated so many times by the Lapps, they having shown how completely dry their feet were after standing in water above their knees for hours at a time, that the Eskimos now see that the seal can be spared from this use, since there are a sufficient number of reindeer skins to take their place.

When you left us last fall we had the following apprentices at the station: Moses (an Indian), Martin Jacobson, Tatpan (Herbert), Akweet koon, Soo wa wha sie, Antisarlook (Charlie), Kum muk, Sekeog look, Oo kwood let, To oo tuk, Ohlook, Alektoona, Wok sock (Eskimos).

Of these thirteen apprentices three were married and had their

families with them at the station. At this writing we have only nine of the above thirteen, four of them having left us. Two of these were discharged, as they were utterly unfit for herding. They took no interest whatever in it and had no desire for it, and had not come to the station for the purpose of being herders, but had come only to stop there for a year, and having received a good living and been supplied with good warm clothes and earned a couple of animals, then to sell these and get back to their homes, warm, well fed, and with a little fortune, say $20 to $70 in personal property, which they then would sell to other Eskimos, and in this manner live another year without work. From their standpoint, this may be regarded as a successful enterprise. The two thus discharged were Oo kwood let and Soo wa wha sie. I presume there are a couple of other apprentices who have come here with the same purpose in view, but they do not talk the way the others did. These ought probably to be sent away, but this has not hitherto been done for reasons that will appear when I come to discuss the qualifications of the herders individually.

It was thought best to have the apprentices remain with the herd; that is to say, they ought to remain in camp where the herd is pasturing, be it near or far from the station. They ought not to have the station as their headquarters and go out once or twice a week to look after their watch, in which case they would look upon their work as herders as a secondary matter, while it ought to be uppermost in their thoughts. Then they would never become habituated to living in camps and moving, a matter which is absolutely necessary for every reindeer herder.

Nomadic and camp life both summer and winter must become such a habit that it can not be abandoned without sorrow, before anyone can be said to be entirely familiar with, and thoroughly trained in, herding reindeer. Any person who desires to become the owner of reindeer must first become a nomad. In order to begin to harden and accustom our apprentices to this sort of life, they were sent into camp with the herd immediately after I took charge of the station and since that time they have been kept in tents continually, even during the pretty severe weather in winter. They would take turns at coming to the station every Saturday, but would be sent out again the following Monday with the necessary provisions.

My instructions were that the apprentices and herders should be divided into two groups, of which each group should be kept near the herd for four months at a time. In this a little change has been made, as four months would be a rather long season for the first time. Nor would this divide equally the seasons of the year. I therefore let the apprentices stay out four weeks at a time and the herders three months. At this writing, we have advanced so far that a few of the apprentices have begun to take an interest in the herd and in camp life. They like better to be out with the reindeer than to stay at the station. Others, on the other hand, can not be made to understand that in order

to become good herders they must first become nomads and take an interest in handling, watching, and being among the animals all the time. They also appear not to understand that when an order is given to them to remain in camp for a certain length of time, the intention is that they must not run away from the herd every other day to see what is being done at the station. It has been necessary to administer many a disagreeable reprimand on account of the violation of this order. On the other hand, it must be stated that it has been very difficult for the apprentices to obey our rules, since they were so accustomed to look upon the station as their headquarters.

To keep them in camp various means have been resorted to, but without any other result than that they would return to the station and have to be sent back again. We, of course, refused to give them food when they came from the camp. My last resort was to set them to doing hard work when they came to the station, and as they have a dread for this sort of punishment they usually dropped the work quickly and ran back to the camp. Sometimes they run away to some Eskimo village instead of going to the herd. They may stop for a day or two in the village and spend a day with the herd, and then come back to the station with an artega, "a coat," a boot, mitten, or sock torn, as an excuse for leaving the herd.

On reading this you may probably say, "Send them off," and this I have thought of doing, but as their time has so nearly expired, and as they have been kept thus far and by my predecessors, it seemed to me that they might be tolerated a few months longer. It is unfortunately a fact that the apprentices here mentioned are chiefly such as have come from some mission station and there have obtained their taste for warm rooms.

I do not say this with a view of finding the least fault with the mission stations or with the work of the missionaries among the Eskimos. On the contrary, the missionaries surely, here as elsewhere among heathens, do all in their power to civilize these people and to win them away from dirt and ignorance. And it is not the fault of the missionaries that the Eskimo boys ignorantly make up their own minds about matters, especially before they have been at a station long enough to be able to form a higher estimate of life. The apprentices who are taken directly from the Eskimo population, and from the Eskimo hut, are far better, for they understand that they are better off both for the present and for the future if they take hold earnestly and do their best to become good reindeer herders. Although this is a matter which I shall discuss more fully later on, I take the liberty of calling your attention to it here in connection with the employment of new apprentices.

Hitherto it has appeared that the married men—that is, those who have families here—are the most reliable, and they seem to have some idea of the responsibility in regard to what they do, and at the same time they are the cheapest for the station, inasmuch as the additional food required by the wives and children is compensated for by their

requiring less clothing. The women look after and mend the clothes, not only of their husbands and children, but also of the other apprentices, and prepare their food.

I shall now mention in detail and make a few remarks on the qualifications of each apprentice separately, and I shall present them in the same order as that given in the above list:

Moses. He is the boy that came from St. James mission, on Yukon River, in 1893, and who was not accepted as an apprentice by the then superintendent, Miner W. Bruce. Mr. Bruce very properly refused to accept him on account of the boy's peculiar character, but he was accepted by the superintendent, W. T. Lopp, which probably was a mistake. It was thought best last fall to let the boy go at once, and so Capt. M. A. Healy was asked to be kind enough to take the boy to St. Michael, the boy stating that he could get home from that place at any time, but Captain Healy declined taking him, although the boy had spent the winter at the station and proved himself a great annoyance to everybody. He could not be sent away in the dead of the winter, as he was far away from his home and could not get to it in the winter season, nor could he be turned out among the Eskimo, who do not feel friendly toward the Indian. A letter was sent to Mr. W. T. Lopp, the present manager of the mission station and of the herd at Cape Prince of Wales, asking whether he would take Moses and keep him with his herd, as it was supposed Mr. W. T. Lopp was fond of the boy and had favored him above others at this station a year ago, but Mr. Lopp refused to receive the boy, and it only remains to be said that he will be discharged and sent home the first opportunity, and the reasons for the discharge have been stated in a letter already written to the St. James mission, being as follows:

> He is too expensive for the station, too smart for the people, too dudish for the other apprentices, too rough for the children, and too lazy to become a herder.

Martin Jacobson came to the station in January, 1894, from the Swedish mission station in Unalakalit, and is much easier to get along with than Moses, but he takes no interest whatever in his work with the reindeer. He is pretty clumsy in all that he attempts to do and thinks himself too smart to obey orders and to begin work as a herder, but I think he has a sound judgment and that he has a liking for work in the school.

Tatpan (Herbert) came the same time as Martin Jacobson and his home is in Golovin Bay or Unalaklik. According to a letter he brought with him he was sent here on the recommendation of Capt. M. A. Healy and has now left the station, being at this time one of Antisarlook's herders, while his two reindeer are still in our herd and will be sent with the herd that goes to Golovin Bay, where Tatpan will continue as herder. His qualifications for becoming a herder were fairly good and it may be presumed that some time in the future he will be able to take charge of his own herd.

Akweet koon came here at the same time with the last two, and belongs to Golovin Bay. He is well qualified for his work, but has to be watched constantly. He is industrious when he is observed, and he seems to like to drive and train the animals, which is a good indication. But if it had not been decided to send a herd to his home, both he and Martin would have been discharged before this, and better-qualified persons secured in their places.

Soo wa wha sie presumably came in the autumn of 1893 from Nome. His qualifications seem to fit him better to become a great doctor in this region rather than a herder. The Eskimos say that he was born to be a doctor, as they know from certain marks on him. This is probably the reason why he did not take much interest in the life of a herder, and so he was discharged and sent home after he had been found guilty of a few small thefts.

Antisarlook (Charlie), from Point Rodney. I do not know at what time he came to the station. On my arrival at the station he was quite ill and puny, and hence I could not set him at any hard work. He was soon to take a herd of his own, and he needed all the strength he could gather before taking charge of his own herd. He had good qualifications as a herder, and a fuller report of him will be given in connection with his own herd.

Kum muk. I do not know how long he has been at the station, but he probably was appointed an apprentice at the time when Mr. W. T. Lopp assumed charge. He had been sent here from the mission station in Cape Prince of Wales, and would have gone back to the same station together with the other apprentices last fall, when Mr. Lopp appointed him to remain here through the winter in order that he might have an opportunity to see how the Lapps take care of the reindeer. He is married and has two children. He is reliable and gives entire satisfaction in every respect. He is as well qualified as anyone found among the Eskimos. With the reindeer he has already acquired, he will be sent back to the mission station to continue his life as a herder there, his two-year term as an apprentice having expired.

Sekeog look, from Synok. In 1893–94, he worked as an apprentice by the month, but this system of keeping apprentices was not in correspondence with the purpose of the school for herders here, and, desiring the change himself, he was, last fall, accepted as an apprentice on the usual terms; that is to say, he was to receive reindeer as his compensation. He is about 26 years of age, and is one of the few boys who are found to be reliable and satisfactory. He has excellent qualifications for becoming a herder, but takes very little interest in driving, taming, etc. The chief thing is to be a reliable and competent herder, and this he will certainly become. He is industrious, willing, always obedient, and executes every order promptly.

Oo kwood let, from Port Clarence. When we arrived he was a boy scarcely 14 years old and in poor health. On the 11th of October, hav-

ing earned his two reindeer, he was sent home. His object in coming to the station was the same as that of Soo wa wha sie—to wit, to get a good living for a while. Considering that he was so young, this might be expected.

Taoo tuk, from Poleyrook, apparently was received here in the autumn of 1893. Judging from the number of reindeer which he is said to own in the herd, I take him to be a brother of Oo kwood let; and for this I have good reasons, for they resemble each other very much in looks, while in all other respects they are very different. He was not married when I arrived at the station, but in the course of the winter he married Nab sok ka. The matrimonial knot was tied by Rev. T. L. Brevig. Ta oo tuk is an excellent huntsman, but doubtful timber for herdsman. Then there are a number of little things concerning him which I have not mentioned in this report. I have not yet decided what to do with him. His apprenticeship expires next autumn, and it will then be determined what it will be best for him to do in the future.

Ahlook, from Point Hope, was left here by you as an apprentice the 20th of August, 1894, to take the two years' course in herding. He has proved himself a worthy young man, and has already exhibited great interest in the care of the reindeer, and he is reliable in the performance of his duties as a herder. His choice was a happy one, and there can be no doubt as to the propriety of permitting him to take charge of a small herd, particularly if there could be somebody with him to look after business matters, or, in other words, to see to it that everything was done in the right season. Ahlook seems to take no note of the time, particularly when he is with the herd. He hardly remembers when it is time to eat, a thing never forgotten by any of the other boys at the station. Of all the apprentices he and Sekeog look are the very best and most reliable herders, and if he has to chase around the herd some foggy night until daybreak he does not look upon this as much trouble, providing he succeeds in having all his reindeer safe in the morning when the time comes to change the watch.

E lek too na, who was brought here by yourself on the same day with Ahlook, is also from Point Hope, but his selection can not be said to have been a happy one, and he has been kept on the to-be-sent-home list all winter. He has made some improvement lately, and just now his name has been taken off the list.

Wok Sock, from Goweerook, was received as an apprentice last fall after I arrived. He is married and has three children. His qualifications for the work of a herder are good, and if he continues doing as well as he has begun he will certainly become an excellent, intelligent herder, in whose hands a herd in the future will surely thrive and make progress. He is reliable, always active, never evasive, never runs away from any order given him, but he does everything exactly as he is told, and seems never to be entirely satisfied himself with his work. He is the only one who reports and asks for new work when

his task is done. He has a great deal of common sense. He and Kum Muk have at times kept the watch without any herders, and everything has been satisfactory, even during the season when the fawns are dropped.

This description of the qualifications of the apprentices will be of some use to them when they find out that their conduct and their industry is mentioned outside of the station, but to what extent it will be useful to me is somewhat doubtful. I am obliged to tell the naked truth, and that is sometimes hard to hear, both for the Eskimos and for others. The following ration list will exhibit to you how our people have been treated. The list here given has been followed throughout the year, excepting as to the potatoes, which froze and became useless.

Ration list for herders and apprentices at Teller Reindeer Station, Port Clarence, 1894–95.

[Four weeks' ration.]

Name and number in family.	Flour.	Butter.	Meat.	Rice.	Peas or beans.	Potatoes.	Soap.	Molasses.	Matches.	Navy bread.	Coffee.	Sugar.	Tea.
	Lbs.	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Qts.*	*Boxes.*	*Pcs.*	*Lbs.*	*Lbs.*	*Lbs.*
Johan Spimsen Tornensis, wife, and one child	60	9	40	5	5	40	1	2	10	50	.....	.....	.....
Mikkel T. Nakkild and wife	60	8	40	5	4	40	1	2	10	60	.....	.....	.....
Samuel T. Kemi, wife, and one child	60	8	40	5	5	40	1	2	8	60	.....	.....	.....
Aslak L. Loneby, wife, and one child	65	9	45	5½	5½	40	1¾	2	8	60	.....	.....	.....
Mathis A. Eira, wife, and one child	65	9	45	6	6	40	1¼	2	8	60	.....	.....	.....
Per. A. Rist	30	4	20	2½	2½	20	½	1	10	30	.....	.....	.....
Frederik Larsen	30	4	20	2½	2½	20	½	1	5	30	2	2	½

REMARKS.—They are furnished all the fish they want. The navy bread is given when they come from camp on Sundays to go to church and bring no food with them. If no rice is to be had they are given rolled oats instead.

For Eskimo apprentices and their wives and children at Teller Reindeer Station, Port Clarence.

[One week's ration. Two children get one ration.]

Flour	pounds	6
Navy bread	pieces	40
Tea	package	¼
Molasses	quart	⅛
Beans	pounds	3
Rice	do	2
Soap	do	¼
Corn meal	do	2
Matches	boxes	2
Meat or pork	pounds	4

REMARKS.—They are given all the fish and seal oil they want. Beans given one week and rice the next week. Seal meat is not weighed, as they get all they want during the season. Tobacco is earned by those who work overtime, after January 1, 1895. One-sixth pound of tobacco given a week until January 1, 1895.

It was thought best to give a certain ration on a fixed time, so as not to have the disagreeable disappointment of finding that the supply of provisions had given out in the middle of the winter. With this in view, a quantity of the various kinds of provisions was calculated and

a list made out accordingly. It was found in going through the supplies that some things were not sufficient to last through the year, consequently such things, as you will notice, were distributed only every other week. On alternate weeks another kind of provisions was given out instead. In this way, and by using all the fish the people could eat, and by bringing some provisions from Golovin Bay, our limited supply proved sufficient. I think it must be admitted that the rations actually given out satisfied the people.

Both the herders and the apprentices have been well and warmly clad, so that they could be out of doors at any time and in all kinds of weather without suffering. The kind and quality of clothing you will find under the account of each individual and also the cost of the same. I find in your instructions that all the apprentices were to receive the same amount, so that no one might get more than his share, but I have not been able to live up to this, since one man sometimes absolutely needs what is not required by another. Hence I find it much better to let each one have what clothing he actually needs without giving the same article to others who did not need it, but no great difference on the average will be found in the treatment of the different individuals.

THE HERDERS' DOGS.

As heretofore stated, we brought with us from Lapland 10 trained dogs, 5 pairs. Only 9 of these reached the United States and only 8 of them San Francisco. On the other hand, the number was filled on our arrival at Port Clarence, 2 pups having been born on the way. One of these pups was given to Captain Holland, so that we had 9 when we landed at the station. It was difficult to tell who was the most pleased, the Lapps or the dogs, at once more setting foot on solid earth and at seeing reindeer. But if the running and barking are to be taken as evidence, the dogs appeared to have had the greatest pleasure. The fact that the dogs were happy was also noticed by the herd when it, after being imprisoned for months, was set at liberty and ran by the side of their enemies. The reindeer here never before having been watched with dogs were quite unmanageable in the beginning, as they also looked upon these dogs as their foes, against whom it was necessary to defend themselves. For this reason the dogs had all they could do to save their skins, and there was many a race between a reindeer and a dog, the dog in front and the reindeer trying to get near enough to use its antlers on his enemy, but these races always ended by the reindeer becoming weary of the pursuit. The deer thought it had put the enemy out of harm's way, but no sooner had it turned before the dog again was at its heels, and now the race was inverted, the deer being chased by the dog.

This experiment was repeated again and again hundreds of times until the dog became too weary to do any more work, but there was always a new lot of dogs to send out and take the place of the exhausted

ones, so that the reindeer finally had to yield and submit patiently to the barks of the dogs. At first the herd could not be driven in any given direction with the dog. All the dogs could do was to keep the herd together. The apprentices seemed well pleased with these dogs and apparently liked them much better than they liked the Lapps. Being asked how they liked the Lapps after having been with them on watch the first night, they answered that they liked the dogs very well, as they now did the running in place of themselves. Now the apprentices are unwilling to get the herd without a dog, as the dogs have perfect control of the herd, a result gained after two months' barking. The herd can now be driven in any direction desired, straight or in a circle.

It has given us much trouble to keep the blood of these dogs pure from mixture, as there is an endless number of dogs and races of dogs in this region. So far we have had complete success. The only mixture that has taken place is with a Scotch collie she dog brought by you. The offspring of these two breeds of dogs promise well. There are now two of these bastards being trained with the herd, and they appear to be very peaceable and careful with the animals. Only one of the collies brought here is kept at the station. The others, together with the half-breed collie and Eskimo dogs, were intended to be killed; but when Mr. W. T. Lopp wanted them they were all sent to him—that is, to Cape Prince of Wales. The females of these were sent back to the station in the course of the winter to be paired with the Lapp dogs, and in due time they were returned to Mr. W. T. Lopp, who now has a sufficient number of dogs of the right kind with his herd. One pair of the Lapp pups were sent to Antisarlook's herd and one pair are now being trained to go with the first herd to be sent away. In addition to this, we still have a few pups that will be given to the apprentices, and we will continue in this manner until everybody is supplied. But it is doubtful whether the apprentices and the other station will be able to keep these dogs from becoming wolves by getting mixed with the Eskimo dogs, for the ability to do herding is lost by this kind of mixture. The offspring become carniverous and not herding dogs. This is to be proven by the half-breed collies and Eskimo dogs that were here, but there will always be an opportunity of getting full-blooded dogs from this station as long as we have full-blooded stock.

SLED DOGS.

We could find no use for these on our arrival here, and consequently decided to sell them, but partly on account of the assurance of the people here who were acquainted with the character of our winters, it was presumed that we might find these dogs useful in the course of the winter, and so we kept four of them until the time came when they might be needed. Meanwhile, as the winter passed and no occasion was found on which the reindeer could not be used, the sled dogs,

TRAVELING WITH REINDEER.

By Tappan Adney. Published by the courtesy of "Our Animal Friends."

together with some other things, were given to Antisarlook as a starting outfit in life. In the course of the winter and spring we found no use for the dogs. All our work could be done by the aid of the reindeer. In May and the first half of June, when we had the best roads for hauling lumber and fuel, dogs could not be used on account of the icy crust of snow, which was too sharp for the dogs' feet, cutting them to the quick, so that they could not walk, much less haul loads.

The only time when dogs can be made useful at the station is in the summer, and the only use they can be put to is to haul rafts of lumber along the shore. For this purpose we have now procured six dogs. These will be sold in the autumn, as we have no use for the dogs during the winter. Dogs bring a higher price in the fall than in the spring, so that we get the work done during the summer for nothing.

No progress has been made in regard to harnesses; that is to say, we have used the same kind as are used in Lapland, which is an improvement of more than 500 per cent on Siberian harnesses heretofore used by this station. This harness is perfectly satisfactory for common use. Until we get new and hitherto unknown ways of training reindeer, any change in the harness is not necessary, nor have we had much time to think of this matter. When you emphasized improvement of the harnesses in your instructions you doubtless were not acquainted with the appearance and excellence of the harnesses now in use at the station, but had in your mind the Siberian harnesses. It would be of but little use to describe the Lappish harnesses; they must be seen and used in order to be appreciated. I may state briefly that they are very much like the shoulder harness used on horses. Of course allowance is made for the restlessness of the reindeer, which keeps jumping up and to the side much more than a horse. In the case of the horse harness the principal weight is put upon the brace and lower part of the shoulder, while in this harness the principal weight rests on the upper part of the shoulder and on the neck, where the reindeer have their strength, like oxen, and while training and partly while driving we have employed tugs like those used in driving horses. The only change made in the manner of driving is that two animals are placed side by side drawing the same sled. The country and the absence of trees here permit this kind of driving. In Lapland this is not possible, but the reindeer has been hitched in the American and not in the Siberian fashion.

According to the Siberian fashion of hitching the reindeer to the sled, one animal is placed about 1 foot in front of the other, and the harness is worn in such a manner that the animal draws with only one shoulder, which makes it run with its side instead of its head in front. We hitch the deer by means of two equally long tugs fastened to a whippletree at the front of the sled. Then there is a strap 18 inches long fastened to the halters of both the animals. This keeps the animals side by side and makes them draw with both shoulders and the neck,

and makes them run with the head and not with the side in front. Our harnesses have also been examined, discussed, and tried by the other white people in Alaska, and all agree in regard to their excellence. I do not know whether our pattern of harnesses has been used at Cape Prince of Wales, but two sets of harnesses have been made for our apprentices and sent up there. It is probable that the Siberian harnesses improved by Mr. W. T. Lopp are used there, as everybody is inclined to like his own patent best. Antisarlook used the harnesses made at this station, and he received two sets on his departure. He says: "It is plenty good; Siberian not good."

David Johnson, instructor at the mission school in Unalaklik, who last winter made a missionary journey along the coast up to Cape Prince of Wales, on which journey he also paid us a visit, has tested various harnesses used in training and driving oxen, and on the 19th of April, 1895, he wrote me as follows:

> Since I came home I have been busy training the bulls. I had Laplanders' harnesses made for them. I drive them with double lines, but single traces. Tried the yoke and the old Laplander harness, but found the one that is in use now worked best.

As Mr. David Johnson is well acquainted with all the ways of driving in America, both with oxen and with horses, and is familiar with all the different kinds of harnesses, and doubtless has tested all, he finds that the Lapland reindeer harnesses are the best also for oxen—a matter in which I entirely agree with him. I think it would therefore be a good thing if some American farmers, in localities where oxen are extensively used, would try this kind of harness, and I have no doubt that it would produce a great revolution and improvement in the manner of driving oxen in America. Of this I have not the slightest doubt. The Lapland harness is certainly better than the yoke or any other kind of harness, both for animals and for driver. It is not claimed that we know more about driving than people do in America, but it should be remembered that the people who have reached this result with harnesses are a nation who for hundreds of years have had to depend upon draft animals resembling oxen, and as a consequence they have made many improvements. The harnesses were tested for years before they were finally adopted, and the result has been the adoption of the harnesses now in use.

Looking at the matter from this standpoint, it is fair to presume that an improvement would come from such a nation if it is to come at all. In America all the attention has been concentrated on improving the harnesses of horses, and the results have been highly satisfactory, while it is doubtless true that the harness of oxen, particularly in later years, has not received the attention to which it is entitled. The harness of oxen ought to be considered so long as this animal has to do the main work in clearing the land. From the work list, which I send you, you will be able to see how both the herders and the apprentices have been employed during the year. In order that the various kinds of work

and instruction might be somewhat equitably divided, it was thought best to keep an account, made up every month, and followed through the week. At the end of the week it would be added up so as to show how many animals each man had lassoed and milked; how many miles each one had driven.

From the list it will appear that some of the Lapps have been kept at the station more than others. The reason for this was that these were best qualified for various kinds of work—that is, for making harness as well as for making sleds and for preparing materials for building, for tanning and preparing skins, for driving and training animals, etc. For training animals, Mikkel Josefsen Nakkila and Johan Speinsen Tornensis are the most competent, not only in Port Clarence, Alaska, but also in Kontokeino, Lapland. Hundreds of reindeer have been left with them by the other Lapps to be trained, the owners being less skilled in this branch of reindeer industry. In Lapland it is customary to give the one who trains the reindeer the free use of it for one year—no small consideration, as they there have an opportunity of carrying passengers and transporting goods at so much per mile—a very profitable business. From this it may be seen how important it is considered to have the sled deer well trained, in order to get the best results from the capacity of the animal to do work.

The Lapps who have been kept with the herd most of the time have several strong points in herding, in being careful and attentive to its wants, and among them I must mention Per Aslaksen Rist. He is regarded as the most reliable and careful man for herding reindeer. Such also was his reputation in Lapland, where he was intrusted with local offices, being a member of the board of supervisors and member of the court of consent. He is also the best of our herders and a man who in Lapland always owned his own and still owns a herd of 1,150 reindeer. It seems that his statements and views in regard to the moving of the herd, in regard to the quality of the pastures, and in regard to matters in general are law to the other herders and to the apprentices. They never contradicted him in such things, but quietly recognized his superiority in this field. To this must be added his great talent for managing a number of subordinates, a quality which he has acquired by many years practice in Lapland.

As I have heretofore informed you, this man did not come simply for the purpose of adding a few dollars to those which he already owns, but also for the purpose of making observations in regard to the Alaskan reindeer enterprise and to get acquainted with the climate and other conditions. If it should become necessary for some of the Laplanders to emigrate from Lapland, it will doubtless rest with him to decide whether or not the emigrants are to go to Alaska.

The other Laplanders, to wit, Aslak Larsen Somby, Samuel Kemi, and Mathis Eira, are also excellent herders. Aslak Larsen Somby and Mathis Eira are also thoroughly schooled in fishing, so that both the

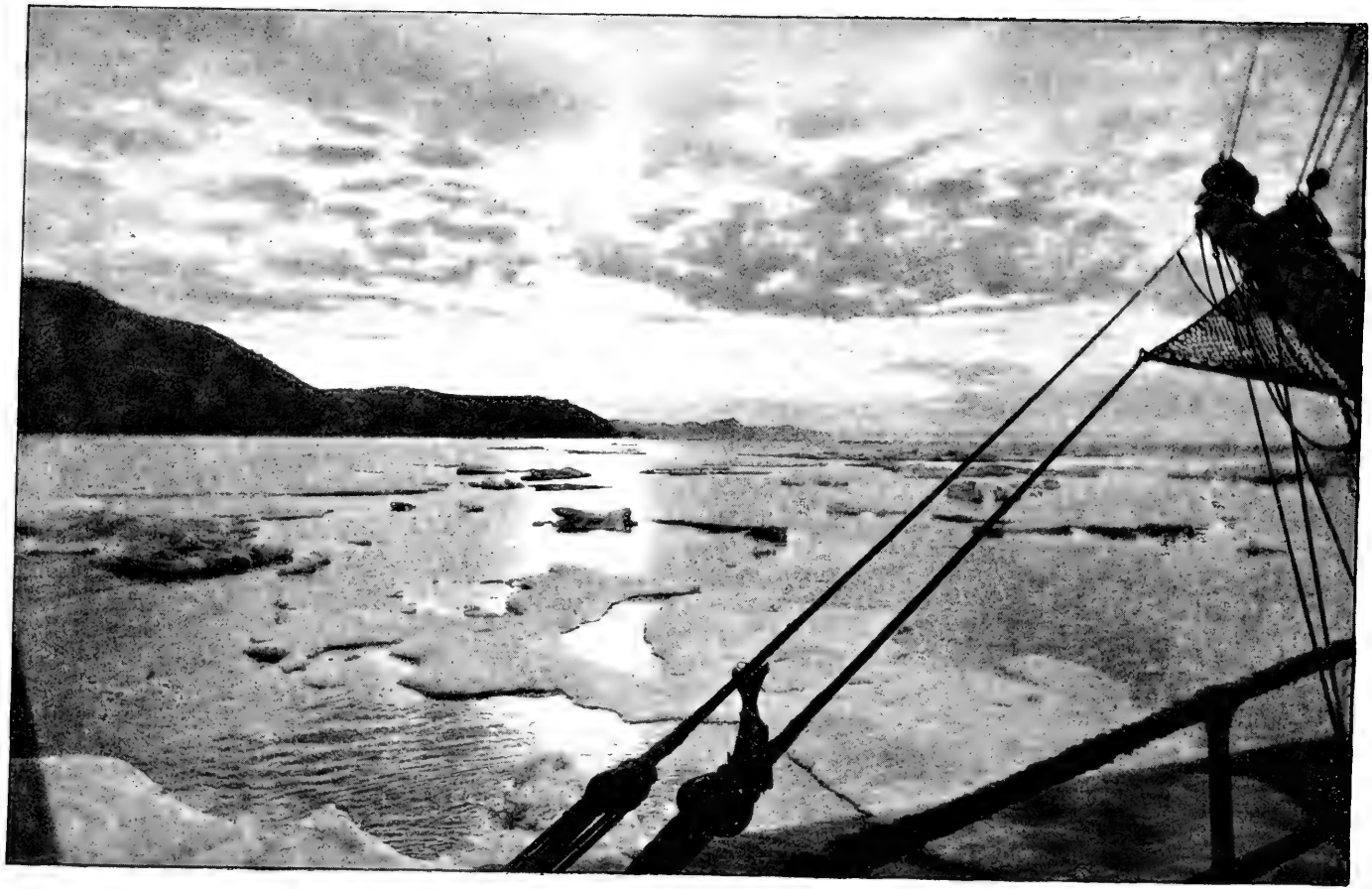
apprentices and the other Eskimos have the opportunity of learning many new and better ways and methods of catching fish.

In addition to the people named in the list of workmen, the writer has also taken part in making sleds, harness, and in building. I also built an ice boat which drifted out of the harbor on the ice last November. It has been reported that the boat was found by the Eskimos a few days later and was stripped of the sails and iron without sending any information in regard to the discovery. Everything was stolen and a settlement will be made with the thieves as soon as they are caught. I have also made a boat 20 feet long used in fishing, and T. L. Kjellman is at present engaged in building a small boat.

My spare time has been devoted to tanning hides and skins and to a thousand and one different things, so that my time has been too short, even during these long summer days.

It has been said that the Eskimos lose their respect for laboring white men. My view of this matter is different. In the first place, the Eskimos would be apt to continue the work in their own awkward manner and never really acquire any of the easier methods of civilization, unless they see good work done. The result of this is that they never will become able to support themselves in any other manner than they do now. That is to say, they will make no progress excepting in reading, an acquisition which they do not value very highly when their stomachs are empty and require more fish. In the next place, I believe that respect is more easily maintained even if the superintendent works from morning to night. The fact that he labors and constantly keeps himself employed, doing something or other, gives a valuable example to those about him. The industry of the superintendent makes the Eskimos understand that a living is the reward of labor, and that it is not birth or color of the skin which makes a man, but his work and his conduct. We have secured all the respect that can fairly be demanded of uncivilized men, and no order has ever been directly neglected, though there may have been some indirect evasions, but I think the most of them have learned by this time that it is useless to try to disobey an order directly or indirectly. The Eskimos have also been convinced that it is best to be obedient and do what is asked of them, and they have often thought that no more is required of them than they can easily perform. With a few exceptions, their conduct has been entirely satisfactory, and matters are progressing without any serious jars.

The result of catching seals has not amounted to much, and I doubt whether a continuance of it will pay. On the 12th of October six of our apprentices were sent out to Point Spencer, where the catching of seals had then begun. They were well equipped with good rifles and ammunition, with other implements, and with provisions for two weeks and equipments superior to those possessed by any chief for the same purpose. On the 26th of the same month they returned with 5 seals,



ARCTIC SUNSET, SIBERIA.
Photograph by William Hamilton.

which was the result of two weeks' work by those men well equipped. For the killing of these 5 seals they had used 175 cartridges. When we add to this the provisions and the ammunition for a shotgun, these 5 seals become pretty dear. From the list of purchases it will be seen that the 5 seals could have been bought for about $4.

On the 31st of the same month I equipped and sent out a new company consisting of five others of our apprentices, but these had to return by land on the 2d of November on account of unfavorable conditions of the ice. The whole bay was filled with ice so that they could not get to Point Spencer. After the ice had become sufficiently solid expeditions would be made now and then to the edge of the ice about 10 or 12 miles from the land, and the result of all these expeditions was the capture of 2 seals. In the middle of February, when the winter sealing takes place near Polayrook, between Cape Prince of Wales and our station, I sent out an expedition consisting of three of our best sealers. This expedition was gone five weeks, during which time they got just one seal, and this one they had eaten before they came home. On their return they informed me that 150 cartridges which they had used in killing this one seal had not been used for this purpose, but had been given to the father and brother of the apprentices. Once more, later, I tried to send a man out, but he had no better luck than the others, and after an absence of two weeks he returned without any seal. In June our apprentices shot 4 seals near the station.

The fishing did not amount to very much last fall, for we arrived here too late. The salmon fishing had already ended, nor did we bring any suitable fishing tackle, and none such was to be found at the station. Still we made a few salmon seines and with them we caught enough for our daily use. The Eskimo apprentices had no way of securing fish and had to get their daily wants supplied from fish caught by the Lapps. Later in the fall a selection from all the different nationalities were sent up to the lakes, and they brought back some tomcod and some herring, and of the herring enough was salted to supply the wants of the Lapps during the winter.

In the course of the winter three different kinds of seines were made which will be used for catching fish this summer, and I think that a winter supply of fish will be secured. This will involve a great saving, since meat and fish are very expensive. One of these seines has lately been used. The ice drifted from one side to the other, leaving an open body of water. The ice may be said to have been gone since the 27th of June. With this seine we have caught a considerable amount of tomcod, not only enough to keep our Eskimos constantly employed in dressing and drying them, but also enough to give the other Eskimo families, who have their tents here on the seashore, all they want; and so the latter also have been busy hanging up fish to dry for their winter supply.

As this work of catching fish is done in the evening after working

hours, and as it does not take more than an hour at a time, we are going to continue it until we have caught all we need for our winter supply. It is not much trouble to run down to the beach and haul from 30 to 40 barrels of tomcod ashore, but for the Eskimos with their primitive implements it would require a whole summer's patient toil to secure this amount of fish. When we take into consideration that the existence of these people during the winter depends upon the amount of fish they can save in the summer, it is no wonder that they are very grateful when they receive 30 to 40 barrels of fish at a time as a present. In my recommendations I shall have something more to say about the fishing near the station.

Of visits to other herds, I have made only one, partly because it was not found necessary this year and partly for other reasons which I will mention later on.

As heretofore stated, I sent, in accordance with your instructions, a herd to Cape Prince of Wales last fall. I have not visited this herd since and know but little about it. The reason why I did not make a visit there is partly that the herd was managed by a man familiar with the care of reindeer—a white man—and also that the distance is so short, only 60 miles, and the intercourse between these two places so lively during the winter—that is to say, for Alaska—that every change and everything done at this station and with our herd is at once found out at Cape Prince of Wales, and in this way any improvements made here can be adopted there. That herd was given to the mission station unconditionally, permitting the manager there to do as he pleased with the herd, his only obligation being the making of an annual report to the Bureau of Education. I did not find this unreasonable, but it determined my action in regard to visiting that herd. In your instructions you probably intended to omit this herd so far as visiting on my part was concerned.

Antisarlook's herd was sent with a Laplander as chief manager during the moving of the herd, but it was not regarded as necessary or even desirable to have Laplanders continue to manage the herd. The object was to find out what the Eskimos could do when they were left entirely to themselves to manage and plan as they pleased. The purpose was to see what they would do when both the responsibility and the work and the profit were left to them without any interference.

The Lapp and two other apprentices returned to the station as soon as the herd and the camp had been established. There was no risk in leaving everything to the judgment of the Eskimos, as the distance between Antisarlook's herd and ours was only 30 miles and the means of communication, the dog sleds, were in constant use, so that in case anything should go wrong we could reach that herd in half a day and assume its management, but this did not become necessary.

Between the 6th of February and the 13th of March, Antisarlook's herders had no help whatever from the station; not a word of advice

in regard to the herd, and yet they had done everything to my complete satisfaction. The only thing that they had not attended to, but which they doubtless had understood, was that they kept the herd in a place that was insufficiently protected. The result was that the herd had twice been scattered during storms, but both times the reindeer had been found and brought together again. It was my object to find a good sheltered place for Charley's herd before the time came for the dropping of the fawns. After wandering about for two days, I found such a place about 20 miles farther east. We then moved the herd and the camp to this place, and one of our apprentices was taken with us from the station and placed in the camp, together with the other people. Having attended to this matter, I continued my journey eastward along the coast to Golovin Bay, partly to get acquainted with the nature of the country and find out where there were good pastures, and the condition of the snow, and to see whether the herds which were in the future to be sent to Golovin Bay and to Yukon might be driven that way, and partly for the purpose of bringing from Golovin Bay some additions to our winter supply. From Antisarlook's herd, I continued with five reindeer and three sleds. I went only a short distance each day, as the weather was stormy and much snow was drifting. Besides the reindeer were not trained, it being the first time that they were in harness. As is usually the case with untrained animals, many turns were made along the road here and there, but this gave us all a better opportunity to find out the things that we were looking for with regard to the pastures, etc.

On the 20th of March we arrived at Golovin Bay and were well received by Mr. John A. Dexter and his wife. Their kindness, together with that of Mr. and Mrs. Hultberg, the last named the teacher at the mission school there, made our stay at this place a genuine rest. We had our daily bustle with boxes, barrels, bags, fish, and unmanageable reindeer, so we had a refreshing vacation. On the 31st of March we returned to the station, after having once more visited Antisarlook's herd.

In reference to the reindeer question we learned on this journey that three places between Port Clarence and Golovin Bay are suited for wintering with reindeer. Of these Charley will have one; the second is west of Sitah, and the third near Chamo. These three winter quarters are sufficient for this distance, as there will not be pasture for more than three herds. On the other hand, there is summer pasture for thousands of reindeer. Furthermore, we found that the herds, which in the future are to be driven southward, should not be driven around along the coast, but directly across the land to Golovin Bay, as the country is not well suited for a rapid journey with a herd.

On my return home a Lapp family, to wit, Aslak L. Somby, were equipped and sent to take charge of Antisarlook's herd while the fawns were dropped. The Lapp family returned to this station on the 20th of

May, the calving time being over, and reported that eighty fawns had been born, of which only one died, it having fallen over a precipice.

There is one of the herders, Tatpan, who has been at this station one year, and who doubtless does his duty as best he can, but the other watch is said to be very poor, and, as a consequence of this, we have to send three reindeer belonging to Antisarlook's herd to pasture a few miles from our station. These three animals have been looked after a couple of times a week until our herd gets to where it can be incorporated with it. On account of the ice we are unable at present to get any information from Antisarlook; but as soon as boats can ply I shall get information in regard to the facts. In case anything should go wrong a Lapp will at once be dispatched to take charge.

From the following copy from the sick list you will be able to judge of the condition of the members at the station:

Name.	Sickness or its cause.	Reported sick.	Reported well.
Wack rock	Fever	Oct. 30, 1894	Nov. 20, 1894
Tatpan	Cold	....do	Nov. 3, 1894
Le keog look	Cut his foot	Nov. 7, 1894	Jan. 5, 1895
Nasok (woman)	Lung disease; cough	Nov. 19, 1894	Still sick.
Frederik Larsen	Frozen feet	Feb. 12, 1895	Mar. 25, 1895
Martin Larsen	Cut thigh with knife	Apr. 3, 1895	May 14, 1895
Frederik Larsen	Boil	Apr. 5, 1895	Apr. 23, 1895
Do	Blinded by sun and snow	May 3, 1895	May 12, 1895
Ta oo teek	Fever	June 10, 1895	June 23, 1895

From this list it will appear that since the 30th of October someone has been sick all the time or unfitted for work on account of some illness. It appears, however, that there has not been much sickness when we take into consideration the total number of people. I have myself been well all the time, and I have not had a single day's indisposition.

There has been one death and two births at the station. One Eskimo child and one Lapp child were born. The Eskimo child is living, while the child of the Lapp died soon after it was born and was buried in a cemetery dedicated by Rev. T. L. Brevig. In this cemetery a white man had previously been buried.

This, perhaps, is the proper place to mention that all the medicines at the station are in the charge of Rev. T. L. Brevig, the only person who possesses any knowledge of such things. In the course of the year medicines have been given to those who needed them, with indifferent results, and we are now out of the most necessary medicines. On this point you will doubtless be informed by Rev. Brevig's report in connection with his requisition for next year. The want of skilled medical help has been severely felt.

The school has been entirely in charge of Rev. T. L. Brevig, and he will make the necessary report. The library of the station has also been committed to his care, and he will inform you in regard to the books now here and also in regard to new books that may be needed.

The buildings found at the station on our arrival have changed

appearances, having been built higher and some additions have also been made. A room was constructed last fall back of the main building for a storehouse. In this all bartering with the Eskimos and the distribution of supplies take place. We have also added a private room for the superintendent and another for Rev. Brevig, and also a kitchen. The east end of the main building was arranged as a dwelling for the minister and his family. The middle part of the building has been used as a schoolroom and the east end is used by the superintendent, as was the case with my predecessor.

The snow drifted around about the house aided materially in shutting in the heat, as the house was literally buried in snow up to the rafters, so that tunnels thirty feet long had to be made, through which we went in and out. We made similar tunnels ten to fifteen feet long to each window by the aid of barrels, out of which we took the bottom and top. These barrels were placed in the upper end of these light tunnels, and through these holes, fifteen to twenty feet long, we obtained a small amount of light. Seen from a distance, the barrels look like large Krupp cannon sticking out of the snow banks, and civilized people would doubtless have taken the station for a fortification of snow supplied with very heavy cannon. Thus, in a sense, we lived under ground, a mode of life which seems to be preferred even by white men after they have spent a few years in Alaska. Wherever you go, you find men talking about building their houses under ground; that is to say, they bury themselves alive.

In the course of the year we have put up the following new buildings:

1. A house for the herders and apprentices built of lumber and thatched with straw. It is 24 feet long, 16 feet wide, and 10 feet high, has five windows and two doors. Has a wooden partition which divides the building into two rooms, one used by the Lapps, the other by the Eskimos. Then there is a loft where a part of the people sleep. This is the third house of this kind at the station.

2. A temporary carpenter shop built of lumber, thatched with walrus skins. It is 16 feet long, 14 feet wide, and 6 feet high. It has two windows and a door. In this building most of the sleds have been made. Here the boats have been built, and here also the hides and skins have been tanned.

3. A schoolhouse 33 feet long, 22 feet wide, and 10 feet high. It has six windows and a door; built of lumber, but has not as yet been thatched for want of walrus skins.

Then a blacksmith shop has been fitted up in the subterranean dwelling built by Miner W. Bruce.

This is all that we have been able to do and it is our intention to have new buildings fitted up until the lumber drifting in here has been exhausted, and the following is our future plan of building: (1) A large convenient house for the apprentices; (2) some important changes in the main buildings; (3) a larger workshop; (4) a larger storehouse;

(5) a smokehouse for smoking meat and fish; (6) a bathhouse according to the northern Russian pattern; (7) a cold storehouse underground for the preservation of game caught in the summer, and for seal meat and seal oil; (8) quarters for Eskimos that come here, so that they do not have to lodge with our apprentices, as they have had to do the past year. It is impossible to keep them out without constant watching; (9) a house for boats and implements, where such things can be kept during the winter. The boats particularly are very much damaged by standing out in the snow all winter long.

How soon the houses here mentioned will be finished I am unable to say, but we will keep on working at them until the cold weather sets in, unless we should receive instructions to the contrary from you.

The furniture belonging to the station consists of some stools, which are in the same splendid condition as when I assumed charge. The tools and other implements are in fine condition, thanks to our blacksmith and the blacksmith shop. Of the rifles and other weapons sent, one shotgun is unfit for use, and it was so utterly dilapidated on my arrival that it can not be put in order outside of a gunsmith shop, consequently I will send it to the United States next fall. You doubtless perceived last fall when you were here there was only one rifle in a condition fit to be used. My father at once began repairing, and in the course of the winter he has put all the weapons and hundreds of other implements in good order.

I seize this opportunity of mentioning some little things and events which have occurred at the station and in its vicinity. Some of these things will be mentioned in the log book, but I think it worth while to repeat them here.

The four Eskimo police appointed at this station last year I discharged upon my arrival and no new police have since been appointed. When I first heard of this system of police, I formed a favorable impression of it, but after thinking the matter over more carefully my mind was changed and the result was that I discharged the police. We need no police for our personal protection. How far the station and school ought to have a police officer is a question which I will not at this time discuss, but under all the circumstances such a police should consist of civilized men who are supposed to have some idea of right and wrong, and not barbarians utterly without any idea of these things. Furthermore, one policeman instead of four would be sufficient. One of the four policemen who last year received pay from the station shot his neighbor last winter because he had stolen five reindeer skins from him. This murder occurred only a few yards from the station. The four policemen had a compensation of 20 sacks of flour for the year. The value of these I made use of in distributing things as Christmas presents among our Eskimo neighbors. I made up packages containing a few pounds of flour, a few pounds of beans, and bread for each family in the neighborhood, and on Christmas Eve I sent for a man from each family to come and get the bundles. They went home with happy faces

VILLAGE OF EAST CAPE, SIBERIA. (BERING STRAITS.)
Photograph by J. M. Justice.

and full of gratitude. We thought best not to play Santa Claus and carry the presents to the houses with the reindeer. From the account you will see that no more was used for these Christmas presents than heretofore has been paid to the police, and I think the station was more benefited by the results of this distribution, since we gained the good will, not of four policemen, but of the whole community.

Mrs. T. L. Brevig and Mrs. Kjellmann made, under the circumstances, a very nice Christmas tree, which was visited both by the children and grown people. Some presents were given to the children, while all received bread and butter and some taffy.

Through you I take the liberty of requesting the friends of missions who send presents to Alaska to send useful things, as, for instance, small tools, of which these people are very poorly supplied. A box of toy tools will do more good, make the Eskimos more happy, and contribute more to civilizing them than one thousand picture cards, no matter how beautiful or costly they may be. A few tools for soldering and some tin and acid would be very useful, as the people here use tin cooking utensils almost exclusively.

We have had no traffic at all in liquor. The Eskimos are too poor in this vicinity to buy ready-made whisky, and if they now and then have a little sirup and sugar these things taste too nice in the mouth of the Eskimo to be changed into liquor.

Of other illegal traffic, there has been some, partly in the immediate vicinity of the station, but it has mostly been confined to primers. Traveling agents have sold a considerable quantity of these and have thereby given great pleasure to the Eskimos in the neighboring villages.

We have made quite a number of skees in the course of the winter, and after a little practice the Eskimos seemed to prefer these to their snowshoes, but it takes a little time to learn how to use the skees, which will be found exceedingly useful in these regions. The apprentices had many a fall, but many of them have made sufficient progress to be able to make good use of them. The introduction of skees among the Eskimos must be regarded as a very important step for their advancement. We had abundant evidence of this, and only a few days after the first pair of skees had been finished a large number of boys came from the neighboring villages to practice on skees made by themselves in imitation of ours.

By adopting our skees the boots of the Laps also had to be adopted—that is to say, there had to be a hook put on at the toe to keep the foot in the skees. Our apprentices used the Lap boots the whole winter, and the Eskimos became very much attached to the square Lap caps. The Eskimos have also begun imitating the Laps in greasing the leather instead of using the skins as taken from the animals. Tanning of the leather and skins, and the Lap fishing tackle, have also been adopted, and thus the Eskimos have made considerable progress.

I shall now present a few observations and recommendations. There will be a great many of them, but I will state them briefly.

In the first place, I have to discuss the situation of this station. I have already heretofore said that my first impressions were not favorable, and it has since become evident on many occasions that a better place might have been chosen not far from here. When I say better, I mean better for the herd and for the reindeer industry. In other respects a more favorable spot could hardly have been found.[1] That which most prevents the prosperity of the animals is the dampness of the ground everywhere. Moreover, the landscape is monotonous—flat, without hills and deep valleys, where the snow lies until late in the summer, the best kind of medicine for a herd of reindeer. The greatest danger of losing reindeer is the ceaseless wind from the north during the whole winter and from the south and southwest during the whole summer. The latter winds are, however, not of great importance, but the biting cold wind in the winter keeps the animals from eating. They gather together as closely as possible to keep themselves warm. The animals exposed to the wind and cold continually run to the other side, and in this manner they continue until the storm becomes too violent and blows through the whole herd and scatters them.

As soon as the herd is scattered all the heads are turned with the wind and away they run until the storm is over. The storm may continue for weeks at a time. The reindeer continue to run until they find some sheltered place, where they begin to eat without thinking of returning. If so much money had not already been spent in building up the houses here, the station ought to be moved, even if no farther than to the south side of Grantley Harbor or on the same side of Lake Imaurook, where the ground, the pastures, and the climate are excellent.

In selecting apprentices it would not be well to choose the best huntsman among the Eskimos, for the fact that a man is a successful huntsman shows that his strongest interests lie in the direction of a hunter's life; that this view is correct has been demonstrated by our apprentices. The liking for hunting is a hindrance to the interest in herding and taking care of reindeer, and hunters are not willing to settle down to the somewhat confining life of a herder. To this should be added that all those among the Eskimos who live where there is seal fishing, and who on that account are good, zealous huntsmen, are the ones who in the longest run will be able to maintain themselves without reindeer. They will longest be able to get their support from the seal. Such apprentices should first be chosen who are likely to be the first to need help in obtaining their support, to wit, those Eskimos who live among the fiords and along the streams. These have nothing to satisfy their hunger with but fish which they catch from day to day. The best and most intelligent men among these should be chosen and be given the first places regardless of how poor they may be. The chief thing to be considered is their intelligence.

[1] The site was selected because of its advantages for landing supplies for the herd and the station. Seagoing vessels can not safely enter Grantley Harbor.

These people are more accustomed to life in the interior of the country. They take an interest in fishing, which does not hinder, but, on the contrary, adds to, their usefulness as herders, since fishing as it is here conducted can well be united with herding, and both things can be looked after at the same time, while seal catching and herding can not be done simultaneously, the territory of each being so far apart. In the next place, I think it would be better to take the apprentices directly from the Eskimo people and not from any of the mission stations. The habits they have acquired at such stations and the many toils of a herder's life are widely separated. How far it is advisable to keep apprentices of the Eskimos and Indians together it is not easy to determine, but it does not seem to me to be advisable. These two races are so different in language and customs that they do not seem to thrive together. I do not mean to say that the Indian should not have an opportunity to learn the art of herding reindeer, but I should think the matter might be so arranged that those two races could be apprenticed in different places. I have simply mentioned this so that you may take it into consideration.

So much has been said and written about the impending and present want of food among the Eskimos that I need not repeat it here. I have neither the ability nor a sufficient knowledge of the facts, outside of a very limited territory, to be able to present anything new or of importance in this direction. I may, however, mention a way in which the present want might be temporarily supplied without great cost on the part of the Government. It appears that the fishermen are the first to need help, since they neither possess nor are able to purchase suitable tackle. Their implements are at least five hundred years behind the times. They are made from strips of seal skin (seal thong). This material grows annually more expensive and difficult to get, since the seal fishing decreases and the use of the skins increases. The demand for seal skins is greatly increased on account of the large number of white people who annually come to this country. The Eskimos of the interior—that is, those Eskimos who live by fishing—are not able to kill any of the seals themselves, as they live too far away from the fishing ground. They have to buy both the skins, thong, and oil, as they need seal oil for light and food. All these things, which are so necessary for their support, must be paid for with fish, as they have no furs to barter with, and as the price of the seal is continually rising, it takes a large part of their fish supply to pay for these things.

There is still an abundance of fish, if the Eskimos only had better fishing tackle and more knowledge in the use of it. I therefore take the liberty to recommend to the Government to furnish a supply of twine for fishing tackle—No. 2 soft laid—and to distribute it among the population here. The expense would not be large, since about 500 pounds of thread would supply a very large number of people. Instruction in making and in the use of modern fishing tackle and the distribution of

thread among the people would certainly be assumed by every missionary in the locality where the Eskimos are found in considerable numbers. In this way about $150 a year would give temporary relief to the most pressing distress until the reindeer have become sufficiently numerous to furnish a livelihood to these poor people. It is to be expected that the reindeer will finally solve the problem and become the source of future wealth to all Alaska.

I would recommend that you appoint a capable physician at the station. A compliance with this recommendation is of the greatest importance. It is hardly proper to keep fifty persons together here without the least intelligent medical aid or the opportunity of getting to where such can be found in any direction. This matter has often been alluded to by the Lapps when they have been sick. My dear Dr. Jackson, please do what you can to have a physician located here, in order that not only those living here and at the neighboring stations, but also the whole Eskimo population, may not have to resort to the heathen medicine men—that is to say, to the miserable witches among the Eskimos. These medicine men ought to be punished for their practice and for the bondage in which they keep the whole population. Death is frequently the result of their meddling, and they bleed their victims in all directions, so that it is difficult to state which is to be preferred—to die, or to get well and be compelled to feed and maintain one more person in future; that is, the one who saved the life, according to their views. These medicine men never work, but they live in luxury on their victims and among the relatives of their victims. There are a great number of this kind of medicine men, occupying various degrees in their art, and they constitute no small burden in the community in which they live, and they are of no use whatever.

To quote one example out of many hundred, I may relate that during my journey to Golovin Bay last winter I spent the night in an Eskimo hut where the woman in the house was paralyzed from the hips down. By asking questions and by conversation, it appeared that the family had no boat, and as a reason for this it was stated that the medicine man had forbidden any of the members of the family to own a boat. If a boat should come into the possession of the family the woman would die, for then the medicine man would lose his power over the evil spirit which had taken its abode in the woman's feet, and this spirit would then spread itself over her whole body, and she would die. Fully believing this statement by the medicine man, the family had not had a boat for years of any kind whatever. This was a great disadvantage, as the family were obliged to support themselves by fishing from the bank, and this was very little, since in order to catch this small amount of fish the family had to move far away from their people and live in a place that was very exposed and barren. It was, however, so situated that they were able to get some means of a livelihood. In spite of all

this, the family felt grateful to the great medicine man among them because he was able to keep the evil spirit from spreading itself and killing the woman. In this case only one family was kept in bondage, but it often happens that a whole neighborhood suffers, since these medicine men predict all kinds of misfortunes if anyone in the village does this thing or that, no matter how necessary it may be to the support of life.

By bringing civilized physicians to accessible places, this annoyance would soon be put down and in the near future it would disappear, but to rob these ignorant people of something without giving them something else in place of it would doubtless be improper. In addition to all this it should also be remembered that Port Clarence is the only suitable harbor in this region. It is a central and favorable trysting place for the fleet of the whalers who might also get some help from a physician located here.

In regard to the manners and customs of the Eskimos, I have nothing to report at this time, partly on account of my short sojourn here and on account of my ignorance of the language. I have had no opportunity of studying the character of the people sufficiently to get any intelligent description of them. All I can say is, that they are experts in small thefts and in begging, and I suppose that their poverty is the extenuating circumstance.

The law against the importation of rifles and fixed ammunition does not seem to be of much use in this part of Alaska, as it is only a dead letter.

In your instructions I have seen nothing stated in regard to fuel and therefore we had to procure this as best we could. Driftwood was hauled to the station for fuel, and for this purpose only is it serviceable, but if we do not get a considerable supply of driftwood this summer and every summer—a fact which I doubt—we will be placed face to face with the reality of being utterly destitute of this absolutely necessary article in this latitude. The driftwood we found was plainly the result of the drifting of many summers. It would surely be no pleasant surprise in this region to be found without fuel, where the wind and the cold come with an unconditional demand to be respected. It has already become necessary to get the fuel from places 10 to 12 miles distant. All that could be found near at hand has gone up in smoke, and the supplies to be found even within a range of a dozen miles is hardly sufficient for another year, and when it is gone the further supply will have to be brought from the other side of Point Spencer, where doubtless some fuel can be found, but the distance will be so great that it will require two days for each journey, and this transportation can be carried on only while the ice is perfectly safe; that is to say, during the severest part of the winter. We must also bear in mind that fodder for the reindeer must be carried on these journeys, as there are no pastures on bare and weather-beaten Point Spencer.

When we take into consideration that the Eskimos are gradually

using more and more driftwood, stoves taking the place of seal-oil lamps, the prospects for the future are not bright. I have considered the matter very carefully and the result of my contemplations I will present in a recommendation that coal be imported, at least enough for the use of the school. In that case the supply of driftwood still to be found in this side of the bay will last much longer. Herders and apprentices will possibly be able to find what they need and the private people living at the station will have to be left to themselves to get fuel as best they can.

Either coal should be imported or a naphtha or electric boat procured whereby fuel can be towed in rafts during the summer from the southwest side of Point Spencer and other remote places where timber for building purposes might also be brought to the station instead of importing materials from the States. Such a boat would also be useful in a hundred ways in connection with fishing, in connection with and transporting of provisions to the camp, and in making visits to the herd, etc.

Which one of these recommendations will be cheapest in the long run I will leave to you to determine; but I will add that a naphtha or electric boat would, in addition to bringing fuel, be of three times as much use during the year as the same amount of money spent for coal. There are several persons here who have the necessary skill and knowledge to handle and take care of such a boat.

As no real assistant has been appointed at the station during the past year, there are doubtless many things which should have been done that have been left undone. One man can only do one thing at a time. I have the satisfaction of having done the best I have been able, and all the necessary things have been done in the right time; and it may be said in general that matters have received as good a supervision as I have been able to give them. The question concerning an assistant will be discussed and determined when a man arrives here this year to inspect the station and transact the necessary business.

Any defect in the report must not be ascribed to any negligence on my part, but solely to my want of the proper education necessary to present my ideas suitably in writing in the English language, my education having been in Norwegian. Finally, I wish you every blessing and happiness, and I hope you may be eminently successful in your effort to help and elevate these people who lie buried in heathendom. I also wish to express my hearty thanks to those who have assisted and who are still assisting you in this great work.

I remain, dear sir, your obedient servant,

WILLIAM A. KJELLMANN.

Dr. SHELDON JACKSON,
Bureau of Education, Washington, D. C.

APPENDIX C.

REINDEER REPORT, CAPE PRINCE OF WALES.

By W. T. Lopp.

Cape Prince of Wales, Alaska, *June 6, 1895.*

Dear Sir: In accordance with the conditions expressed in your letter of July 27, 1894, giving to this mission a herd of domestic reindeer, I hereby submit our annual report.

We have experienced no serious difficulties in their management, and with the recent increase of fawns the herd now numbers 174.

Our herders have consisted of five Eskimo boys, ranging in ages from 14 to 19, and one Siberian, all of whom were with us last year at the Teller Reindeer Station at Port Clarence. Until April they lived in a log house about 7 miles northeast of the cape, and since then they have lived in a tent. The winter has been unusually severe, and on some occasions when blizzards were raging the herd or parts of it have been lost. But when the weather cleared up they have always been able to find the deer. Regular watches were kept by our herders until January, when some of the Eskimo herders from the Teller Reindeer Station explained to our boys how they and the Laplanders stood no regular watches and did not herd the deer at night. From that date to the time of calving, our herders stood no night watches, much to their own satisfaction and comfort, and no loss to the herd. It is our opinion, however, that a night watch should be kept over a herd, unless the ground is covered with snow and there is no danger from dogs and wolves.

Our six sled deer have been kept busy packing and hauling supplies and wood. New deer have been broken, but most of them are too young to be very useful before one or two years. In March, Moses, the Yukon Indian boy, came up from the Teller Reindeer Station to visit our boys, and while here broke a 4-year-old steer according to the Laplander method. The Lapp harness has many advantages over the Siberian harness, but it has the same objectionable feature of a single trace rubbing through the hair and skin of the hind legs. Both, however, are admirable for breaking deer to the sled. A slight modification of the harness used on horses seems to be best adapted for use on the treeless plains in this section. We have used Eskimo and Siberian sleds only, as the snow is hard here most of the winter.

We have lost 9 deer during the year, 3 females and 6 males. One (a bull) was killed in fighting, 2 ran away, 5 (3 of which were sled deer) were killed by dogs, and 1, which our collie dogs ran away, a coast native shot. At first the deer became frightened at the collie dogs, but they have now become accustomed to them. In the case referred to, our dogs followed one about 30 miles up the coast and ran it down between the coast and large inlet lake, which is about 8 miles wide. Thin ice on the lake made it impossible for the deer to return by swimming. The dogs deserting it, a simple-minded native found it a few hours later, shot it, and sent us word.

As only four 2-year-old bulls were allotted to our herd when we left the Teller Reindeer Station, and one of these becoming crippled and another killed by fighting, we were afraid many of our cows would have no calves. But we have been very agreeably surprised. We now have 69 fawns, having lost only 6 by cold and accident. During the calving season in April and May we kept the herd in a sheltered place at the mouth of Sooh ung-wok River, about 25 miles from here.

Last August and September we kept a cow tethered near our house and milked her daily for our own use.

Very respectfully, W. T. LOPP.

Dr. SHELDON JACKSON,
United States General Agent of Education in Alaska.

P. S.—Since the date of the above report we have lost 2 cows and 1 fawn, which leaves 171 deer in our herd. One of the cows died from internal injuries received in calving, and the other was probably crippled by our Siberian, so that it had to be killed. The fawn died from intestinal troubles.

W. T. Lopp, Superintendent of Teller Reindeer Station, 1893-94

APPENDIX D.

LETTERS OF J. C. WIDSTEAD TO DR. SHELDON JACKSON.

TELLER REINDEER STATION,
August 28, 1895.

SIR: Mr. Hamilton has by this time made you familiar with the change that has taken place at our station.

The schoolhouse is completed, or nearly so, and I think you would, could you see it, find it very cozy. We intended to put in six windows, but as we had not so many, and none came with the supplies this year, only four had to do.

We have also, with the lumber that came, put up an addition to the station 48 by 17 feet westward and 40 by 24 feet northward, with room for an assistant, one separate room for natives trading, three rooms for herders with family, and one 16 by 16 feet for the boys; besides, we have in the same building boxes for fish, seal meat, and seal oil, with a hallway leading all through the building to keep outsiders out. Upstairs we intend to partition off separate rooms for fur and clothing if lumber holds out.

We have thought it best to have all the boys in one room, and get an old woman to cook for them. By this we can save, I think, some on the provisions, and control them much better than formerly, when any one in the house could sit down and eat with them, as is their custom; she could also wash and scrub for them.

Back of the Eskimo's room will be the store, with one little partition door to the herder's house, and one to the Eskimo's room for trading. This will keep the two separate, besides save time and much trouble. As it now is in the old store, traders outside the counter can lean over and take anything on the shelves when not watched.

The Lapps are all very well and pleased, except Mathis Eira, who has been a constant worry to Mr. Kjellmann and myself since his coming here. He is dirty, insulting, lazy, absolutely refuses to do my bidding, scolds me in the presence of the boys and other Lapps, and hangs around the station for days at a time. Then he seems to take a spell and does his duty again. But lazy he is, and will be. Now, what can be done with him? He is the most expensive herder at the station, and does the least. I mention these things that they can be acted upon during the winter. The other Lapps are very good fellows—as trustworthy and true as Socrates in respect to duty.

I intend to send the herd into the lakes as soon as the *Bear* comes down from Point Barrow. It is more safe there from Eskimos and dogs, and there is better food for them.

Things at the station are otherwise in their usual track. A little is done, but much more could have been had I had someone to help me.

Trusting in the care of the Infinite, and with good hope for the experiment, I await, with pleasant expectations, your order for next summer.

Respectfully, yours,

J. C. WIDSTEAD.

Dr. SHELDON JACKSON,
United States General Agent of Education in Alaska.

TELLER REINDEER STATION,
August 29, 1895.

DEAR SIR: The *Bear* is ready to leave us for another winter, and I inclose, in haste, these few lines as additional to the brief letter of yesterday.

First. As it becomes more and more difficult to get fuel for the winter, allow me to mention the necessity of having a steam or naphtha launch. I think the subject came up last year during your stay in Alaska. We find that such a launch would be of great service to us, not only in the bringing of wood, but for our extensive fishing trips (as necessary to the station all the year round as fuel is to us in winter), bringing news and food to the herd by the lakes in spring and fall, visiting distant herds, etc. If this can be had, much time and labor will be saved. A second-hand or even old launch would do as well as a new one, and this could be purchased for comparatively little.

Second. That, for the best result at the station, it is necessary to have active men, men of intelligence as well as labor. As we can not depend on the native for anything before he is shown how to do it, and unless he is constantly watched, the idea suggests itself that we must have willing and active men.

Very truly, yours,

J. C. WIDSTEAD.

Dr. SHELDON JACKSON,
United States General Agent of Education in Alaska.

APPENDIX E.

ESTABLISHMENT OF A PURCHASING STATION IN SIBERIA.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION, ALASKA DIVISION,
Washington, D. C., January 10, 1895.

SIR: With reference to the establishment of a temporary purchasing station for reindeer on the Siberian side, it is objected, first, that it would be dangerous to place a large supply of barter goods in the care of a few men among a barbarous people so far removed from any protection that the barter goods would tempt the cupidity of the natives, who would have no hesitation in killing the men in charge in order to obtain possession of the supplies.

In reply permit me to say that while this objection has seeming force, yet experience has disproved it. In 1865–1867, in the attempt to extend the Western Union telegraph lines across Siberia, Lieut. C. L. Macrae, George Kennan, and Richard J. Bush, with small parties of white men, were stationed at various points in that portion of Siberia, the two extreme stations being 2,000 miles apart. They traveled between the stations freely, sometimes only one white man in company with the natives, without molestation. Upon one occasion when they were all absent their quarters were entered and robbed.

In 1878–79 the explorer A. E. Nordenskjöld, on the steamer *Vega*, wintered on that coast. During the winter individuals of his party made long trips alone with the natives in safety.

Again, in 1885, a whaler, the *Bark of Napoleon*, was wrecked off the coast of Siberia. Four of the crew reached land in safety, but three of them died from exposure during the following spring. One survivor, J. B. Vincent, lived two years in safety with the natives, and when he was rescued Congress voted $1,000 for the purchase of presents to be distributed among the natives of that section for their good care of these whalers.

Last winter a small whaling schooner, with a very small crew, wintered on Plover Bay on that coast. The natives could easily have killed them all and taken their provisions, but no attempt was made to molest them.

The same class of people reside on the Alaska coast, and when it was proposed to establish schools we were informed by everyone that had any information from that region that it would not be safe to leave the teachers exposed in the Eskimo villages. So much was said on this

point that you remember we refused to allow any women to go to those stations, and the men were informed that they took their lives in their hands in volunteering to go; and yet we established three schools, placing one man at Point Barrow, one at Point Hope, and two men at Cape Prince of Wales, where they were unmolested. The killing of Mr. Thornton, at Cape Prince of Wales three years afterwards (as was proved by the fact that the murderers were at once shot by the natives themselves), was not the act of the people, but of a couple of hoodlums. The same thing might have occurred in any of our large cities.

Last winter three whalers spent the winter with $1,000 worth o barter goods on St. Lawrence Island, and this year we have placed a man and wife alone on that island with $500 or $600 worth of provisions. At Cape Prince of Wales two years ago Mr. Lopp was there entirely alone with a large supply of provisions.

The whole history of the coast has proved the safety of white men located there who behave themselves.

The second objection is to the effect that the Siberian reindeer men will become jealous of the transporting of so many deer to the American side, thinking that it will deprive them of the monopoly of the trade in skins that they have had in the past. This, too, is very plausible, but not substantiated by facts. The same objection was persistently urged against the possibility of purchasing any reindeer, and yet we have been able to purchase some every season, and have already secured on the American side a number that in a term of years will make the Alaska people independent of the Siberian trade. If the Siberian natives are shrewd enough to object to large numbers of reindeer being taken to Alaska for fear of losing their trade, they should have refused to sell from the beginning.

It may be inexpedient, because of the disinclination of certain parties upon whom, to a certain extent, we are depending for assistance, to establish a trading post on the Siberian side at present; but whenever it becomes urgently necessary to secure the reindeer in larger numbers and hasten the work it will be found necessary to adopt that measure, or at least to give it a trial, as other efforts have so far failed.

Very respectfully,

SHELDON JACKSON.

Hon. W. T. HARRIS, LL. D.,
Commissioner of Education.

APPENDIX F.

DAYBOOK AND JOURNAL AT TELLER REINDEER STATION PORT CLARENCE, ALASKA.

[Kept by W. T. Lopp from July 1 to August 10, 1894, and by Rev. T. L. Brevig from August 10, 1894, to June 30, 1895.]

July 1, 1894.—Southwest wind. Captains Porter, Hagerty, and Robinson came over from the anchorage in a whaleboat to see the herd. Rev. Edson conducted divine service in our schoolroom.

July 2, 1894.—North wind. Mr. Willocks, of Pittsburg, Pa., visited the station. Captains Mason, Williams, and Townsend, of the whaling fleet, repair the lighter launch and anchor it.

July 3, 1894.—South wind. The United States revenue-cutter *Bear* arrived at the anchorage about 5 a. m. and steamed over to the station. Forty-eight deer were landed; also a quantity of cedar lumber and spruce posts; Captain Healy's steam launch towed them ashore on the Pacific Steamship Whaling Company's launch. Dr. Jackson remained on shore over night.

July 4, 1894.—The *Bear* dressed ship and saluted in honor of the day. Dr. Jackson took inventory of stock on hand at the station. At 8 p. m. the *Bear* weighed anchor and steamed for the watering place on the south side of the bay.

July 5, 1894.—South wind. Let Charlie and Mary go to Point Spencer to see their brother. Our gill nets catch plenty of nice salmon. Begin to pack up preparatory to leaving for Cape Prince of Wales.

July 6, 1894.—The *Bear* leaves the watering place and steams over to the anchorage. Charlie and Mary returned from Point Spencer; they report walrus very plentiful.

July 7, 1894.—South wind. Good catch of salmon.

July 8, 1894.—South wind. A whaleboat from the fleet sails to Nook. The usual Sunday service.

July 9, 1894.—South wind. Heavy surf and rain. One fawn born. Start with the Siberians for the anchorage; about one-third the distance we met the *Bear's* steam launch with Dr Jackson and Captains Weeks and Sherman on board; Lieutenant Dodge in command. We were towed into the station again, where a settlement was made with the Siberians; it was decided to pay Dantin and Nootadlgot $75 worth of goods, as had been promised them, but Anker was allowed wages for only seven months, from which was deducted the rations he had received

since his discharge in February, being dissatisfied a little more was added. Captain Weeks was in search of two deserters that had left on July 4; at his request we sent two of our native police to Nook to hunt for them and put them in irons and return them to the ship. Discharged Sungoo, who has been here in the capacity of a worker and handy man. We returned to the fleet in tow of the launch.

July 10, 1894.—The *Bear* left the anchorage about 1 p. m. for South Head to land Dantin and Anker. The schooner *Rosario* anchored here to fish and then went to Nook. We returned from the fleet in one hour and fifteen minutes. The deserters could not be found at Nook.

July 11, 1894.—South wind and rain. The steam whalers leave the anchorage; the *Rosario* goes out. Mr. Grubin and some of the herders, with the *Bear's* seine net, lent by Captain Healy, went to Nook to try their luck with salmon. A male deer dies from internal injuries.

July 12, 1894.—Calm; rain. I hear from some Noometes that the deserters are there, and I send two of the police after them. While they are gone the two men arrive in another canoe. We gave them dinner and supper in Charlie's house, and when the police returned we persuaded the men to go to the steamer *Jeanie* and give themselves up. Try the seine here and catch nothing.

July 13, 1894.—North wind and rain. The whaleboat returns from Nook with about 900 salmon. The *Jeanie* and *Peters* went out. Make flume for closet.

July 14, 1894.—North wind. Charlie cuts a window in east end of herders' house. Two canoes return from Point Spencer. Our police received 5 bags of flour for taking the deserters over. Send the seine again to Nook to try for salmon and catch 6.

July 15, 1894.—South wind and rain. Sunday services as usual.

July 16, 1894.—South wind and rain. Canoes come from Point Spencer. Send whaleboat to Grantley Harbor to fish.

July 17, 1894.—Southwest wind with rain. Milk a quart of milk from 5 deer.[1]

July 18, 1894.—South wind, with rain. Milk another quart of milk.

July 19, 1894.—Southeast wind, with rain. Whaleboat returns with about 300 pounds of salmon trout. Send the scow up the lagoon for wood.

July 20, 1894.—South wind, with rain. The little creeks become rivers; surf is very high; herders thoroughly drenched.

July 21, 1894.—South wind, with rain. Mr. Lopp was sick.

July 22, 1894.—South wind, with rain. Small Sunday school conducted by Mrs. Lopp. Moses is sick.

July 23, 1894.—South wind, with rain. Let Charlie's brother and two of our herders go to Nook with our seine, to try for salmon.

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[1]By the Siberian method the deer are thrown down to milk. They are frightened and withhold it. With the advent of the Lapps, modern methods were adopted.—EDITOR.

July 24, 1894.—South wind with rain. The *Bear* arrives from Cape Serdze, Siberia, with 38 deer—11 males and 27 females.

July 25, 1894.—South wind and heavy surf. Two deer ran away when turned loose after landing; the boat capsized in the surf. The last load was landed at the mouth of the lagoon to escape the surf. Our whaleboat lands 60 bags of flour, 5 boxes bread, beans, and molasses. Mrs. Healy and Mr. Liebes come ashore. Kill a female deer that had a leg broken in landing.

July 26, 1894.—Northwest wind. On invitation from Dr. Jackson, I accompanied him up the lakes in the *Bear's* steam launch, which Captain Healy placed at our disposal; we returned about 5.30, and after taking dinner with Captain Healy, came ashore. A male and female deer which were crippled on ship or in landing, had to be killed. Mr. Grubin and the herders milked two quarts of milk from six deer, two bottles of which were sent to Captain Healy and officers on the *Bear*.

July 27, 1894.—South wind. Went aboard the *Bear* in the forenoon; she weighs anchor and leaves for the Arctic.

July 28, 1894.—Northwest wind. We go in small boat up the lagoon to a river and give our babes an outing.

July 29, 1894.—South wind. The 2 deer which ran off a few days ago returned. While holding our Sunday service a ship was announced as anchoring at Point Spencer.

July 30, 1894.—South wind. The brig *Meyer* came over from Point Spencer in the afternoon and anchored off shore. Mr. Wm. A. Kjellmann, the new superintendent, wife and daughter, Rev. T. L. Brevig and wife, and Mr. and Mrs. V. C. Gamble, who are to teach at St. Lawrence Island, came on shore in the evening and inspected the station and herd.

July 31, 1894.—The *Meyer* beat up closer to shore and employed natives to help discharge the vessel. The Lapps and their baggage were sent on shore. An Eskimo remarked when he first saw the Lapps: "Well, well! these are the people we have seen on our playing cards for all these years." We saw the Lapps milk deer; after lassoing, they make a halter-like noose with which one holds the deer while another milks.

August 1, 1894.—Calm, with south wind. Mr. and Mrs. Lopp move into the herders' house and the Kjellmanns into the west end. The Brevigs move into the east end of the frame house. The work of discharging the vessel progresses very slowly. During the night the station dogs broke into the dugout and killed the old goat of the Kjellmanns, and during the day they killed one of the kids.

August 2, 1894.—Calm, with rain. The Cape Prince of Wales supplies were landed and put under the canoes.

August 3, 1894.—Calm, but rainy. Two Lapps go back into the hills to get acquainted with the locality. The flour and bread is landed from the vessel.

August 4, 1894.—South wind. Nothing landed in the morning. The dugout is repaired; the Lapps move it. One Lapp returns late in the evening and reports his companion sick and left about 7 miles from the station. Mr. Kjellmann, with two Lapps and six Eskimos, started out to find him; they missed him, but the other Lapps had also gone out, finding him a little northwest from where the others crossed the hills.

August 5, 1894.—Clear and calm. Lumber landed. Norwegian service for the Lapps and service for the Eskimos in the afternoon. Mr. and Mrs. Gamble remained at the station over night.

August 6, 1894.—Northeast wind. The *Meyer* had discharged her cargo for Port Clarence and Cape Prince of Wales, and commenced to take in a supply of water before leaving. The Gambles remained at the station all day and night. The Lapps drove the deer into a pen to milk them, and obtain about 6 quarts of milk.

August 7, 1894.—South wind and clear. One Lapp and two Eskimos herding; the rest are employed binding nets and laying up wood for winter. Mr. Lopp is ready to go, but the heavy surf keeps him. The Gambles remain at the station.

August 8, 1894.—Calm, fine day. The whaler *Fearless* was sighted near land through the fog, and when the fog lifted she anchored near the *Meyer*. Brevig and Gamble boarded the *Fearless* and took dinner with Captain Simonson. In the afternoon Captain Holland and Captain Simonson of the *Fearless* came ashore and visited station and herd. The Gambles went on board the *Meyer* in the evening. The herd was driven into the pen and 83 female deer, 4 sled deer, 5 steers, and 8 bucks were selected and marked as the Cape Prince of Wales herd, the mark being a round hole in the right ear. Two deer were marked in a different manner for each of the herders.

August 9, 1894.—South wind. The *Meyer* and *Fearless* are still at anchor; the heavy surf still delays Lopp. The east end of the house is under repair. About 18 of the Cape Prince of Wales herd came back and were met with 8 from this herd, 4 miles east of the station. Our deer had their calves in the cape herd and could not be separated.

August 10, 1894.—South wind, with heavy surf. The *Meyer* and *Fearless* left for the Arctic at 4 p. m. The Gambles were landed here and will stay till the *Bear* comes and takes them to St. Lawrence Island. The Lapps, with Grubin and four herders, left at 6 p. m. The other herders left yesterday in a whaleboat. The Gambles occupy Mr. Grubin's bedroom, and Brevigs move into their bedroom, partitioned off from the sitting room. One deer runs away from our herd and joins the cape herd.

August 11, 1894.—Calm, clear, and a beautiful day. The east end of the herders' room was fixed up as a kitchen and storeroom for Brevig, and the west end as a private storeroom for Kjellmann. The herders not with the herd are making gill nets and tents. Traded some salmon.

August 12, 1894.—Calm, clear, fine day. Service in Norwegian for

Lapps and in English for Eskimos. At 8 p. m. a breeze set in from the west, with fog.

August 13, 1894.—Calm, clear, fine day. Early in the morning a steamer was sighted; she anchored close up to shore at 8 a. m. It was the *Albion* from San Francisco with Bruce and Gibson on board with their Port Clarence troupe of Eskimos as passengers. Captain Lundquist said they had landed a cargo at St. Michaels and from here they were going north to Kotzebue Sound to establish a trader's station. Bruce was speaking about getting another troupe with him down on the side-show line next winter. The *Albion* left at 2.30 p. m. We sent mail with Captain Lundquist.

August 14, 1894.—Calm and clear; easterly wind. Continued repairs of "lean-to." Four Lapps were sent out to build a corral for the deer. The twine gill nets catch sufficient salmon for the station's use.

August 15, 1894.—Calm and clear, with a light northerly breeze in the evening, +78° at 2 p. m. Gamble and Brevig took an outing to Grantley Harbor in a canoe. They returned at 7 p. m. with snipes. The Lapps finish the corral. Kjellmann and 4 Eskimos work on the lean-to to transform it into a store; 6 quarts of milk.

August 16, 1894.—Clear and calm; very warm; Brevig's birthday; north wind very strong. Our skin dingey drifted off to-day. Gamble and Charlie had forgotten to fasten it last night.

August 17, 1894.—The steamer *Albion* called in on her return from Kotzebue Sound and landed some women and took one or two others on board. She also watered; left at 11 a. m. Nobody called at the station; 4 quarts milk.

August 18, 1894.—West wind, clear. Four natives lay up wood for winter; 5 quarts milk. Cape Prince of Wales canoe go to Grantley Harbor.

August 19, 1894.—Sunday. Calm and clear, with the usual service and Sunday school. Three children were baptized, two Eskimos and one Laplander.

August 20, 1894.—Northwest wind. The *Bear* came in about 11 last night. Dr. Jackson and a lieutenant came on shore for the *Bear's* mail. Mr. Grubin and natives returned at the same time. Dr. Jackson was on shore all day settling Laplander business.

August 21, 1894.—Dr. Jackson on shore all day attending to business. Mr. and Mrs. Gamble were taken on board the *Bear* to-night, as Captain Healy consented to land them on St. Lawrence Island.

August 22, 1894.—Strong wind changing to west and abating during the day. Early in the morning W. T. Lopp's goods were taken on board to be landed at Cape Prince of Wales. The *Bear* sailed at 9.30 a. m. Captain Healy intimated that he might call again. Three Lapps and 5 Eskimos went to get logs for a house up the lagoon. Four Eskimos were sent to the herd and 5 will remain at the station. Six quarts of milk were brought in to-night. The first snow of the season appeared on the mountain tops and high hills.

August 23, 1894.—Southwest wind strong in the forenoon, abating toward night. Clear and fine. Mr. Grubin took two more men up to the lagoon wood party. Continued house fixing.

August 24, 1894.—Strong southwest wind; clear in the morning; cloudy the rest of the day; wind changing to south. The store or trade room is now ready and the partition in the old storeroom is taken down to be used as a schoolroom until the schoolhouse is ready. A fawn was killed that was in someway maimed so it could not walk.

August 25, 1894.—Cloudy, with occasional showers, the rain becoming general toward night. The wind veered from south to southeast, becoming strong and causing a high surf. The woodcutters returned late last night with only a little wood, stating that the water was too low to float logs of any size. Six quarts of milk. The village seems deserted; the people are out fishing or hunting.

August 26, 1894.—The clouds drizzled through roof and walls, exposing our supplies to a wetting. Wind northeast, sobering down toward evening, exposing a patch of clear sky. The usual services. The music and singing seem to please the people.

August 27, 1894.—Cloudy, with rain spurts. Wind light from south in forenoon, calm in afternoon. The superintendent with a gang of herders left for the lagoon to get logs and wood. Soon after, Thorwald Kjellmann left for the second lake to fish, taking with him Charlie and Mary Wocksock, Per, and Mikkey, who were to be landed near Nook and travel overland to explore the country in reference to winter feeding grounds. The two Point Hope boys and Moses were left to help around the station. Mr. Grubin and the teacher continued the repairs on the house.

August 28, 1894.—The same wet, foggy, drizzling weather; calm. Continued repairs around the house.

August 29, 1894.—Calm, with a light breeze from the north in the evening. Kjellmann returned with 60 logs, and has another raft started. Several natives went up the lakes to fish.

August 30, 1894.—Light north wind, with light clouds. The Lapps received provisions for a month. A Cape Prince of Wales canoe arrived with letters from Mr. Lopp, to be forwarded with the *Bear* if it anchored here again. The deer are milked daily, and some cheese is being made.

August 31, 1894.—Clear, calm; a beautiful day. The roof of the lean-to was fixed; a coat of tar put on warm, and cement was put on and seemed well adapted to keep the rain and flour from affiliating. Mr. Grubin brought another raft of logs from the lagoon. No report from the deer.

September 1, 1894.—Calm and cloudy, with light south wind; rain toward evening. The raft of logs was landed. A door was put in the west end of the building, Kjellmann's kitchen. The center room of the building was fixed up for a schoolroom. Only three tents remaining on the beach. No report from the deer.

HOBBLING REINDEER, SIBERIA, PREPARATORY TO SHIPPING TO ALASKA.

Photograph by William Hamilton.

September 2, 1894.—Light south wind, cloudy and foggy. The usual Sunday exercises. A seal was killed just outside the station by a Singamut. Some reindeer milk was brought in in the morning, and orders were given to discontinue the milking for a week.

September 3, 1894.—Calm and overcast. School commenced with 7 pupils during the day session, and 8 of the herders attended during the evening. The logs for the herders' house, west of the other houses, were put in place.

September 4, 1894.—A clear, very nice day; light north breeze. Mr. Grubin left about noon for the lagoon with a crew to get wood and logs. Work was commenced on the new house, 16 by 30. The fishing party returned from the lakes with considerable fish that they had caught and bartered for; also some birch wood for sled handles, etc. Per Rist had explored the country around and found plenty of grass and moss, and pronounced it good for winter pasturage.

September 5, 1894.—A bright, fine day, with two heavy showers in the evening. About 7 p. m. the smoke of a steamer was discovered in the cape region, and when last seen was nearing the sandpit. Public opinion agreed it was the *Bear*. A canoe arrived from the Diomedes in the evening. The day school was attended by 20 children. Continued work on the herders' house.

September 6, 1894.—The *Bear* was moored outside the station this morning, and Dr. Jackson came ashore at 7 a. m. to get Kjellmann and some Lapps to come on board and land the deer. Johan and Mikkel went on board and landed the deer by throwing them overboard and letting them swim on shore. Thirty-two deer were landed.

September 7, 1894.—Calm, cloudy, showers. The Mesdames Brevig and Kjellmann were invited on board the *Bear* for dinner. Dr. Jackson was on shore all day settling accounts with Kjellmann. No school, as the teacher's roof leaked so badly that he had to fix it. In the afternoon the officers of the *Bear* were on shore hunting, and most of them visited the station. The ladies returned home from the *Bear* at 10 p. m. and reported a "splendid time."

September 8, 1894.—A fine, warm day, with occasional showers in the afternoon. At 9.30 the steam launch took the station's ladies on board to join a pleasure party going up the lakes; they returned at 7 p. m., reporting a "good time." Dr. Jackson came on shore and had a talk with the herders before leaving. The first lieutenant of the *Bear* was on shore just before she sailed and took an inventory of all the ammunition, Government and private, at the station. The *Bear* sailed at 10 p. m.

September 9, 1894.—A fine, clear morning, with rising west wind and turning colder. The usual Sunday service.

September 10, 1894.—The wind increased in strength all night, and has been blowing a storm from southwest with rain all day.

September 11, 1894.—North to northeast wind, increasing in strength;

bright and cold; growing colder. A crew of Lapps and Eskimos was sent to gather moss for a winter supply. A Cape Prince of Wales canoe arrived from Kings Island with a letter from Mr. Grubin to Mr. Lopp.

September 12, 1894.—Light north wind; bright. The frame of the dingey blown away in August was brought back by some natives from the other side of the bay. The Lapps and Eskimos went out to gather grass for fillings in Lapp and natives' boots; returned with a good supply.

September 13, 1894.—A clear, fine day. A thin crust of ice had formed on the pools, and frost covered the ground. Kjellmann took two native herders with him for more grass. The moss party returned, reporting much mast put up. Kjellmann and another native brought in 14 deer that he had found, 7 or 8 miles north from the station, alone and unguarded. A canoe from the big Diomedes came in to trade.

September 14, 1894.—Mr. Kjellmann took the 14 deer back to the Eskimo herd in the morning and found they were not missed by the herders. The Eskimos were busy boiling deer meat, and Martin said he had killed a female deer that was sick, but no report had been made to the superintendent. Martin was ordered in to the station to explain matters or pay for the deer and leave. A canoe left for Cape Prince of Wales and letters were sent to Lopp. A clear, nice day; calm.

September 15, 1894.—Clear, bright, and calm. The dingey was fixed to be serviceable.

September 16, 1894.—Clear, bright. Martin was exonerated from killing the deer. Per Rist had killed her, as she was dying, six ribs having been broken. Frederick Larsen was appointed messenger. He is to leave for the herd about noon and return in the evening with report from the herd. Six deer were reported missing and Antesilook hunting for them. The usual Sunday exercises.

September 17, 1894.—Strong north wind, calm and clear. The dog sniffing was the cause of the discovery. A bull was reported dying from wounds received in fighting another bull, the horns passing through the vitals. Oowoodlet got permission to visit his mother and friends; 18 children attended the day school, and 12 the evening school.

September 18, 1894.—Clear and nice. Seven Eskimo herders were sent up the lagoon for logs and wood. The roof was laid on the herders' house. Brevig put on double windows and painted the sash and frames. The ever-curious Eskimos painted their artegas, noses, faces, etc., without the use of a brush by pressing them against the newly painted windows. Considerable fish was traded. No report from the deer.

September 19, 1894.—Overcast, with strong south wind; showers. One deer reported sick. Three deer were reported seen near the lake east from the station. Kjellmann went and found them; one was sick and was known to be there. The lumber crew returned, reporting a

raft ready, but impossible to move because of high winds and surf. The herders seem to enjoy their evening school.

September 20, 1894.—Strong south to southeast wind. The "wood gang" took the scow and brought some wood. Rafters were put in the herders' house for the floor, and window frames fitted in. The sick deer was still unable to move. The two stray deer were returned to the herd. Carl Brevig celebrated his first anniversary by inviting the white population at the station to dinner. Interest in the day school seems to be decreasing, but evening school is well attended.

September 21, 1894.—A stormy and rainy day; wind south; the surf going over the bank into the mouth of the creek.

September 22, 1894.—The wind and rain storm continues. A female deer was found dead near the herd; liver disease.

September 23, 1894.—The storm continues; the wind blew with unusual force about 5 a. m. Wind south to east-southeast, abating toward dark. The usual Sunday service and school. About 3 p. m. Frederick had the mishap to wound both hands by the discharge of his gun escaping by the breach instead of the muzzle. The muzzle was stopped with a plug of wood and a spike so securely wedged in that the firing of the gun could not expel them. His hands were badly torn and blistered by powder. A dressing of arnica and laudanum was put on. Some Cape Prince of Wales people said they had found a dead deer near the inlet into Grantley Harbor; also killed a sick deer that had swollen legs. The meat was already consumed.

September 24, 1894.—A nice day, with light northeast wind. At 10 a. m. Brevig and five natives started for Cape Prince of Wales in the whaleboat.

September 25, 1894.—Strong southeast wind and heavy rain all day. A workshop for the natives was commenced.

September 26, 1894.—Southeast wind. A deer that had been missing came back sick; another sick deer has strayed.

September 27, 1894.—A nice, clear day; wind from the north. The sick deer was found lying down in some bushes; it is now kept separate from the herd.

September 28, 1894.—Northeast wind, gloomy. No report from the deer.

September 29, 1894.—North wind, bright and clear. Three sick deer were killed, that the meat could be used for the herders. There are yet two sick deer in the herd.

September 30, 1894.—Northwest wind; a pleasant, clear day. Herd all well.

October 1, 1894.—Strong northwest wind, with a little rain and snow. Wocksock moved into the east end of the new house. Brevig and natives arrived about 10 p. m., having made the trip in nine hours. The boat was sailed to the cape Saturday night. Storm and strong south wind kept them for two days near Kinnowyok, and Wednesday

morning Poloynuk was made, and from there Moses and Brevig walked, climbing the highest mountains and arriving at Cape Prince of Wales at 3 o'clock in the afternoon. Sunday he married Netoxite and Kinnowyok, the first native couple married according to civilized custom in northwest Alaska. On the return trip the boat was caught in a squall and Brevig's shotgun was lost overboard.

October 2, 1894.—A fair day, with north wind. A fishing party was sent up to the lakes. All well at the herd.

October 3, 1894.—Snow and sleet. Wind northeast, southeast, south-southwest, clearing up with a west wind in the evening. No report from the herd.

October 4, 1894.—Northeast wind, with snow and sleet. Two more deer sick and all efforts to find the missing bull have been in vain. The fishing party returned with a good supply of tomcod, herring, and other fish. The evening school is well attended.

October 5, 1894.—Cloudy, with snow and sleet all day; wind northeast to north-northwest. A woman at Nook committed suicide by shooting herself; she had been demented for some time.

October 6, 1894.—Strong northwest wind, cold and blustering, blowing a gale during the night. Kjellmann and Brevig visited the herd and counted the deer, and from various counts by both it was agreed that the flock contained 440 deer. They were in good condition. It was decided to move to a place about 5 miles up Grantley Harbor, as it was thought the prevailing disease was caused by some herb consumed with the moss.

October 7, 1894.—A cold, blustering day; east wind, with snow flurries. The usual Sunday exercises, with but few Lapps present.

October 8, 1894.—South wind; rain, snow, and sleet. Kjellmann and herders brought a float of wood.

October 9, 1894.—Northwest wind, cold and blustering. The herd was moved 5 miles east on the banks of a river entering Grantley Harbor.

October 10, 1894.—North wind; fair day, with ice forming on the ponds and lagoon. Many applications for medicines for colds, sores, and sore eyes. No report from herd.

October 11, 1894.—Clear, with a zephyr from the northwest. The snow disappeared around the house and on the beach. A woman came for treatment; by accident she was shot in the fleshy part of the leg with a revolver. The wound was ulcerating and the ball in the wound. I did not have the instruments or knowledge to extract the bullet, but the wound was cleaned and dressed. Many patients come for medicines. The dressing doctor seems to have lost patronage lately.

October 12, 1894.—Gentle northeast wind. One more deer sick. A sealing party, consisting of Kummuk, Sekeoglook, Oowkitkoon, Electoona, Ahlook, Taootuk, and Soovawhassie, were sent to Point Spencer this morning, Wocksock, Martin, and Charley remaining at the station. Ookwoodlet came back yesterday and desired to leave the station. He

was paid for his two deer and left. Johan and Mikkel were out in the whaleboat to hunt for material for sleds, etc. Sugar dropped into the mouths of little children seems to be a very strong drawing card for them to come to school. The Lapps reported having seen tracks of two wolves near the herd.

October 13, 1894.—North breeze; cold, clear, and nice. Kjellmann brought home a raft of logs for firewood. Considerable fever, sore throat, and headache prevail at the station.

October 14, 1894.—North wind, dark and gloomy. The usual Sunday services. The Sunday school was called, but the audience forgot to appear.

October 15, 1894.—Calm, clear; thermometer, +20° all day. Per Rist, in going out to the herd with his week's supply on his back, tried to cross the ice on one of the lakes back of the station and fell in. His artega buoyed him up until he reached solid ice.

October 16, 1894.—Strong east wind, +19° to +23°. Oowkitkoon and Martin were sent out to gather moss. No report from deer.

October 17, 1894.—Light east wind, +23° to +42°, clear and mild. An iceboat is under construction.

October 18, 1894.—Light east wind, clear and fine, +25° to +38°. The smithy was completed to-day and tried in the evening. The natives had gathered during the day to see the wonder. They smelt the forge, and put their noses as near the furnace as the extremity would allow. When they saw the iron become red, and the iron was put on the anvil and the sparks began to fly, they sought the outside, helter-skelter, and now only two of the bravest here have the courage to peep into the shop. No report from the deer.

October 19, 1894.—Zephyr from the north, clear and nice, +26° to −35°. No report from the deer. The moss gatherers returned in the afternoon.

October 20, 1894.—Calm, cloudy, mild; occasional snow flurries. One female deer died yesterday and one to-day from the prevailing disease. +27° to +39°.

October 21, 1894.—Sunday; the usual service and school. Clear, calm, mild, +25° to +40°. All but one of the last litter of collie pups have been traded to the natives.

October 22, 1894.—Clear, calm, mild, +21° to +36°. Wocksock and Martin piled up wood along the beach.

October 23, 1894.—The sun rose, ascended, culminated, descended, and set. The thermometer began its diurnal course at +10°, ascended to +30°, and descended to +12°. After evening school the native boy element came into the schoolhouse with their faces painted and crawling on all fours. The masquerade ended in a plaintive cry for "cow cow" (food).

October 24, 1894.—Calm and clear, +13° to +27°. A load of wood was brought home. Twenty-six Eskimo children attended school to-day.

October 25, 1894.—Southeast to southwest wind, cloudy and gloomy. The sealing party was visited and five seals brought back as the outcome of two weeks' hunt. Mathis and Peter arrived with two deer to take provisions out to the camp. Thermometer, +10° to +22°.

October 26, 1894.—Light northeast wind, clear and bright. The sealing party arrived home. Jenny Kjellmann was sick from swollen tonsils and sore throat. Thermometer, +10° to +29°. No report from deer.

October 27, 1894.—Southeast wind; cloudy, with snow flurries. Frederick returned to-day, but failed to report. He had been very much frightened yesterday by hearing several shots fired at a distance.

October 28, 1894.—West breeze; cloudy, with snow flurries. The usual service and Sunday school. Toward evening Thorwald Kjellmann and I visited the village and entered several houses, and found them much better than we had expected; they were warm and had floors, one bed, and bunks for beds. Thermometer, +8° to +16°.

October 29, 1894.—Calm, clear, and cold, 0° to +2°. The sealing party was hindered from going to Point Spencer by floating ice from Grantley Harbor in the bay.

October 30, 1894.—Partly overcast; calm, with snow flurries; thermometer, −2° to +12°. The Eskimo herders, and especially Moses and Martin, are showing themselves more and more lazy. All is well at the herd. Only small open spaces on the bay.

October 31, 1894.—Strong northeast wind during the night and forenoon, abating to +8° to +20°. The bay being clear from ice, Mathis, Moses, Oowkitkoon, and Charley went sealing. Tatpan and Wocksock are sick. The Lapps hauled two loads of wood with two deer and sleds, one man driving both. About 3 p. m. it commenced to snow, and 1 inch fell before it cleared. No evening school.

November 1, 1894.—Calm and clear, +14° to +20°. The sealing party returned walking, having left their boat. They could not reach Point Spencer on account of ice.

November 2, 1894.—Strong east wind, 0° to +8°. The day opened with a catch-as-catch-can fight between Mary and Nah yuk. Charley tried to mediate peace and was sent sprawling to bed by his "better half," and her opponent sent sprawling to the floor headforemost. All is well with the herd. Wocksock is worse and the Lapps have tried bloodletting, and in the evening a woman from the town tried her bewitching ceremonies on him. He was worse from lying naked on the floor, exposed to a draft. I took my medicines home. The bay is covered with ice.

November 3, 1894.—Light east wind, +8° to +28°; clear. The ice boat was rigged up to-day. Electoona and Taootuk came in with a deer and sled each. Samuel drove an untamed deer. Two parties from the lakes reported the ice safe on the river.

November 4, 1894.—Light wind from the east, clear and nice. The usual Sunday service, with a very scant attendance by Lapps and

Norwegians. The Sunday school was well attended. Thermometer, 0° to +8°.

November 5, 1894.—Clear and calm; thermometer, −2° to +2°.

November 6, 1894.—East wind, −2° to +4°. Samuel, Electoona, and Taootuk went to the herd, and Charley Kummuk, Moses, Martin, Johann, and Mikkel went out for wood and logs for a stable. The ice boat was used for the first time to-day and went nicely. The ice was rather rough. No deer report.

November 7, 1894.—Overcast, with light northeast breeze, +10° to +30°. Sekeoglook was brought in to-night from the herd, having cut his leg in erecting a tent; the bone was touched; I dressed it. Three deer are reported sick.

November 8, 1894.—Cloudy and milder, +10° to +22°. Two deer are now kept at the station to haul wood. Sekeoglook's leg is doing nicely. A strong north wind all night; it took the mast from the ice boat.

November 9, 1894.—A full-fledged snowstorm, with north wind; snowing all night and day. Only two herders attended the evening school; 7 at the station. Thermometer, +10°.

November 10, 1894.—A gale (with capital G) from the north awoke the silent echoes of the night and the new-born snow from its innocent sleep about 1 a. m., forcing the fleecy crystals to seek shelter behind hills, in ravines, behind logs, and inanimate objects bigger than themselves. Millions and millions had found an asylum in the trade room, where they had jumped into boxes and barrels and scaled the shelves; some had been satisfied with the bare floor, some had clustered under the ceiling and stovepipe upstairs, some had crawled into deerskins, and some had even tucked themselves snugly into the Lapp boots. Thermometer, +10° all day. No report from the deer.

November 11, 1894.—North wind very strong; storm abating during the day; cloudy. Service and Sunday school; +9° all day. No report from the deer.

November 12, 1894.—Light northwest wind; cloudy, with snow flurries. The skee was used for the first time; it was used by the Eskimos, and they managed to land on their backs, without any ceremony, in the snow. No deer report. Thermometer, +11° to +16°.

November 13, 1894.—South-southwest to west-northwest wind; blowing hard from southwest at noon, and piling the ice up high on the beach; +9° to +21°.

November 14, 1894.—Northwest to southwest wind; cloudy, with a little snow. Thermometer, +20° to +31°.

November 15, 1894.—Northeast to east-southeast wind, strong in the afternoon. Samuel and Per Rist came on late last night with the carcass of a male deer that had broken its head in trying to break loose from its fastenings. Five deer are now under training for the sled Frederick and Martin are hauling wood every day with three deer. Thermometer, +18° to +2°.

November 16, 1894.—A gale from northeast since midnight; snow drifting bad. Zero all day. Frederick and Martin brought moss and two extra deer.

November 17, 1894.—Strong northeast wind all night and day. Cloudy and cold, −12° to −2°. Soovawhasie was paid for his two deer in the evening, as he wants to quit herding.

November 18, 1894.—The usual service and Sunday school. The forenoon service was well attended by natives and most of the Lapps. The Sunday school was attended by but a few. Soovawhasie left for home this morning. Light east wind; thermometer, −8° to −4°.

November 19, 1894.—Light southeast wind in the morning and strong north wind in the evening; clear; −8° at 8 a. m., +22° at noon, and −2° at 6 p. m. Charley shot another seal. Considerable fish was traded from the lake people.

November 20, 1894.—Clear, cold in the forenoon; in the afternoon a strong north wind, with a chilling mist; −12 to +20°.

November, 21, 1894.—A gale from north during the night and blowing a storm all day; cloudy and snow flurries. About 9 p. m. fire caught in the wood behind Kjellmann's bedroom stove and ignited the wall behind it. The fire was discovered before any damage was done. Frederick, Mikkel, and Johann went out after moss this morning early and will be gone three days. Thermometer, −2° to +12°.

November 22, 1894.—Medium strong north wind, clear, −4 to +2°.

November 23, 1894.—Light northeast wind, cloudy, −12° to −2°. The moss men returned in the evening, and Moses and Per from the herd. The water gave out in the creek some days ago, and ice is the staple article now.

November 24, 1894.—Strong southeast wind all night, becoming a gale in the morning; +18° to +22°. My stovepipe blew down about 11 p. m., and soon after the cask supporting the station school bell blew over into the ditch. The snow in the ditch saved the bell from being broken; some of the castings are broken. The wind lulled at noon, but now it is blowing harder than ever.

November 25, 1894.—The storm continued all night; about midnight the house shivered and shook on its foundations. Cleared at 1 p. m. and changed to southwest, veering to southeast again with very strong wind. Thermometer, +24° to +28°. The usual Sunday service and school.

November 26, 1894.—Strong southeast wind all night and morning, +22° to −26°. The bell was rigged up again. None of the boys at the evening school; 6 at the station. Wood hauled with deer.

November 27, 1894.—Winds blowing from all directions except northwest; zero all day; clear.

November 28, 1894.—Strong east wind; cloudy, with snow flurries The ice broke up in the bay in the afternoon and fear was entertained for Kummuk and Wocksock, who left yesterday for the sandpit with a

LASSOING REINDEER, SIBERIA.
Photograph by William Hamilton.

dog sled with only nine biscuits between them. The dogs ate two dog harnesses and a seal skin last night. Zero all day.

November 29, 1894.—Strong northeast wind. The bay clear of ice. The ice boat anchored outside had disappeared. Kummuk and Wocksock returned in the evening, having traveled all round the bay. No school, but nearly the whole day was spent in visiting sick people in the village. Time commences to drag heavily. Thermometer, +18° to +26°.

November 30, 1894.—Calm and cloudy, with snow in the evening. A sled arrived from Golovin Bay with letters for Kjellmann and Lopp. Thermometer, +10° to +15°.

December 1, 1894.—Light east wind, cloudy and snowing, +14° to +22°.

December 2, 1894.—North wind, colder, +12° to +2°. The usual Sunday service and school. About noon the strong wind broke the ice, and some women out fishing were carried along out toward the sea. Mr. Kjellmann with a crew in the lifeboat rescued them.

December 3, 1894.—Northwest "sailor's breeze," with damp, penetrating wind. Evening school poorly attended; +4° to +10°.

December 4, 1894.—Northwest wind, cold and blustering, −6° to −10°. The moss party returned.

December 5, 1894.—Strong northwest wind, cloudy, −8° to −12° Mrs. Kjellmann sick.

December 6, 1894.—Clear, calm, cold, −9° to −18°. Mrs. Kjellmann better. Karl Brevig sick with fever.

December 7, 1894.—Cold, calm, clear, −18° to −22°.

December 8, 1894.—Calm, clear, cold, −16° to −23°. Mr. Kjellmann put up another stovepipe.

December 9, 1894.—Clear, calm, cold, −14° to −20°. The usual Sunday service and school. The leading shaman had a confab with the spirits to-night. He had four fires burning in a square and reposed himself in the middle, groaning and sighing. Four new doctors were with him guarding the fires; Charley was one of them. Thorwald Kjellmann went out there to see the show, and the guards vanished, and he, thinking it was a sick man left there to die, spoke to him, but received no answer. The Lapps were cautioned by Mary not to look toward the fire.

December 10, 1894.—Calm and bright, −14° to +20°. Charley and Mary inspected Thorwald Kjellmann's feet and asked if they were not stiff or swollen, because he had spoken to the shaman.

December 11, 1894.—At 1 a. m. three sleds arrived from Cape Prince of Wales with letters from Mr. Lopp. No pupils from the village, as a dance was in progress all day; −14° to −22°. The Lapps returned.

December 12, 1894.—Light northwest breeze, clear, −14° to −20°.

December 13, 1894.—Clear, calm, hazy, −14° to −18°. Soovawhasie

arrived early this morning with dog team to take his goods home. The Lapps have been hauling wood to-day.

December 14, 1894.—Light northwest wind in the morning and clear; at noon a gale, and snow flying; −14° to −25°. The cape sleds left early this morning, and Kjellmann with the Lapps and herders at the station left for the timber beach to stay till Saturday to pile up wood and logs, but returned at night on account of the storm; some were frostbitten.

December 5, 1894.—Clear, with light east wind; −20° all day.

December 16, 1894.—Strong east wind in the morning and blowing a gale toward evening, the thermometer suddenly rising at 4 p. m. from −14° to +2°. No Sunday service, but Sunday school.

December 17, 1894.—Strong west wind, clear, −8° to −14°.

December 18, 1894.—Clear and calm, −14° to +18°. Kjellmann went out to the herd to return to-morrow. Sekeoglook is now walking about.

December 19, 1894.—Stormy, with northeast wind during the night, veering to south and snowing in the morning; −14° to +30° in the evening, and the snow turned to sleet. Kjellmann returned about noon and in the evening the Lapps came in.

December 20, 1894.—Light southwest wind, clear, +18° to +22°. Two sleds returned with moss and small willow bushes for Christmas.

December 21, 1894.—The sun rose at 11.40 a. m. and set at 2.50 p. m. Light northeast wind, clear, +18° to −2°. Three deer were killed to-day for meat, the herders getting one and the Lapps the other two. At 2.30 Mrs. Johan Tornensis was delivered of a big boy, but through some bungling of the Lapp woman attending her, the child died soon after its birth. The mother is doing well.

December 22, 1894.—Light northeast wind, cloudy, −6° to +10°. Considerable wood was hauled with deer to-day.

December 23, 1894.—Wind southwest, northeast, and southeast, growing stronger; after dark a little snow; +18° to +22°. Sunday school, but no service.

December 24, 1894.—Light northeast and south wind; clear, nice day; +26° to +30°. The station has been crowded with natives all day persisting in seeing everything. At 5 p. m. the doors were opened and the room was soon filled with children and adults. Several songs were rendered, and after a short talk on Christmas, the goody-goodies were distributed. During the day every house in town had received Christmas cheer in the form of "cow-cow" (food).

December 25, 1894.—Calm and cloudy. Service in the forenoon. In the evening the Eskimo herders were gathered and some games were played, songs sung, and coffee and tea served. At 8 p. m. a gale blew up from south to southwest, with rain and sleet; +30° all day.

December 26, 1894.—The gale continued all night; in the morning it veered around to northeast and blew in gusts. Yesterday Electoona was caught gambling with Nan u gok, a low character that loafs around

the station considerably. He was turned out and forbidden to enter that house anymore. The Brevigs visited the Kjellmanns in the evening. Thermometer, +10° to +21°.

December 27, 1894.—Wind continued all night; cloudy, and some sleet in the evening from the southeast; +20° to 28°.

December 28, 1894.—Strong northeast wind, cloudy, mild, snowing in the evening; +24° to +30°.

December 30, 1894.—Calm and clear, very fine day. Sunday school. The sun set at 3.04 p. m. Sekeoglook had his hand scalded by hot tea.

December 31, 1894.—Clear, calm, fine day. Sun rose at 11.30 a. m. and set at 3.09 p. m. The Nook people received a present of flour and biscuit to-day. Late last night Mrs. Kjellmann found a pair of mittens that Thorwald Kjellmann lost last fall, by being stolen from him, in the possession of Isah genna. He said he had gotten them from his brother Charley. Moses left toward evening for Charley's brother's place to get dogs to go to Cape Prince of Wales to the dance. Thermometer, +2° to +4°.

January 1, 1895.—Calm, clear, bright; −2° to +10°. Service for the Lapps. In the afternoon I had five patients, Mrs. Wocksock, Sekeoglook, a boy from Nook covered with sores from the waist down, and a woman from town with a rebellious tooth, which was extracted. Thorwald Kjellmann celebrated his sixty-eighth birthday to-day.

January 2, 1895.—Bright and calm; −4° to +2°. School commenced after Christmas, and 29 showed up bright and early to get the biscuit. Two sleds arrived from the lakes for the dance.

January 3, 1895.—Light northeast wind, clear and bright; sunset 3.31 p. m.; −6° to +4°.

January 4, 1895.—Calm, foggy; +9° to +16°. Sleds are arriving all day, and more are expected. When all have arrived they will leave in a body.

January 5, 1895.—Clear, bright, calm; −5° to +8°. Three sleds arrived toward evening, making the number complete. They will leave early to-morrow. Mrs. Kjellmann and Brevig had a trip behind reindeer to-day, and enjoyed it.

January 6, 1895.—Mild, calm, foggy. The "carnivalites" left at early dawn, 9.30 a. m. Johann Tornensis's body was buried to-day and a burial place dedicated on the east side of the little creek east of the station house. Little before dark Kjellmann and wife, Mikkel, and myself went out for a drive with the deer and steered for Nook, where I saw a patient that, from descriptions of his ailment, I had been treating for bleeding from the lungs, and found him suffering from acute rheumatism and swelled joints. Arrived at the station at 7 p. m. Thermometer, −2° to +8°.

January 7, 1895.—Calm and clear; −11° to −2°. In the afternoon Kjellmann, Nakkila, and Wocksock left for the upper lakes to get birch

poles for harnesses, and will be absent four days. Frederick was taken sick toward evening.

January 8, 1895.—Calm and foggy; −9 to +2°.

January 9, 1895.—Breeze from north-northeast, clear, snow flying; −3° to 0°.

January 10, 1895.—Light north wind, calm after dark; −15° to −3°; overcast in forenoon, clear in afternoon.

January 11, 1895.—Strong northwest wind; partly overcast; −17° to −22°, growing colder.

January 12, 1895.—Strong northwest wind, stormy; −23° to −20°. Kjellmann and party are yet absent, and anxiety is shown, especially by Mrs. Nakkila. The wind is against them, and they may have sought shelter in an Eskimo house.

January 13, 1895.—North wind and overcast in the forenoon, clear and calm in the afternoon. Jenny Kjellmann froze her nose playing around the house; −24° to −30°. Sunday service. Kjellmann and party returned shortly after dark with only one frozen nose to Jack Frost's credit. The first day out they had traveled about 70 miles. On the return the deer got tired and unwilling, and but small progress was made. The skees are becoming a favorite among the herders, and all want a pair.

January 14, 1895.—Light northeast-east to southeast wind; −33° to 31°. As yet we have not seen a genuine Minnesota cold or blizzard, but live in shaking expectation of seeing one before next May.

January 15, 1895.—Light southeast wind, cloudy. Thermometer stationary at −14°.

January 16, 1895.—Calm, cloudy, with two hours sunshine about noon. Thermometer, −6° to 0°.

January 17, 1895—Calm, clear; −9° a. m., 0° 2 p. m., −19° 5 p. m. About 7 p. m. a native arrived from Golovin Bay with letters and barter goods, traveling for Mr. J. Dexter. That he was from the vicinity of Swedes was betrayed by the snuff box, which he handled with Swedish gracefulness.

January 18, 1895.—Light southeast wind; −19° to −16°. Two sleds arrived from the cape toward evening. Letters were sent to Mr. Lopp by the trader.

January 19, 1895.—Strong northeast wind during the night, light southeast during the day; −19° to −14°. Mrs. Kjellmann was taken very sick during the night. Charley, the herders, and several sleds returned to-night from the cape, all complaining of being cold.

January 20, 1895.—The usual Sunday service and school. Strong southeast wind all night, light wind during the day; mild overcast, with some snow falling; +10° to +14°.

January 21, 1895.—Southeast gale; cloudy, with snow and sleet; +22° to +28°. A sewing school for Eskimo girls was begun to-day with 11 in attendance. Evening school is attended by 4 herders.

January 22, 1895.—Calm, overcast; +14° to +26°. Aslak made himself a bed. Natives are trading biscuit for grouse still on the wing.

January 23, 1895.—Overcast and clear; 0° to −4°. The sleds with the supplies departed for the lakes to-day. The Lapps are hauling wood.

January 24, 1895.—Calm and clear in forenoon; north wind in evening; −4° to −3°.

January 25, 1895.—North-northeast wind medium, becoming stronger; −2° to −6°. Mail and presents to the herders arrived from Mr. Lopp.

January 26, 1895.—A gale from north-northeast, snow drifting bad; +16° to −15°.

January 27, 1895.—The storm continued all night and day; −16° to −22°. The usual Sunday service and Sunday school.

January 28, 1895.—Storming and drifting still from north-northeast; −4° all day. Charley should have picked out his herd to-day; storm prevented it.

January 29, 1895.—Storming still; no herd separated. Kjellmann has made two wooden shovels. Per's deer that he was breaking broke loose from him and started for the herd. Thermometer, −4° to 0°.

January 30, 1895.—Storming still from north-northeast; clear, but snow flying; 0° all day. All herders and Lapps but Solon, Per, and Ahlook were sent to the herd to help Charley separate his herd to-day.

January 31, 1895.—Clear, snow flying, strong north-northeast wind. Kjellmann left for the herd early this morning and Charley's deer were separated and taken behind the bluff across the bay; 115 deer (15 his private property) were taken, 90 females, 3 sled deer; the rest were bulls and geldings. The south side of the house was now so completely blocked up that a tunnel had to be dug through the bank to get an entrance to the schoolhouse.

February 1, 1895.—A howling north-northeast wind all night and day. Charley received his equipment and made preparations to leave for his future home to-morrow. Kutchuk, Dexter's trader, arrived to-day from the cape with letters from Mr. Lopp. Thermometer, −4° to −10°.

February 2, 1895.—Still storming from north-northeast; clear, but snow flying; doors and windows on the south side of the house entirely blocked up by snow. Charley and family left about noon. Aslak, Moses, and Ahlook will help him with the deer. Thermometer, −4° to +12°.

February 3, 1895.—Clear, bright, calm; −3° to +2°. The usual service and school. Tunnels were dug for doors and windows.

February 4, 1895.—North wind puffy. Partly overcast. Sun rose 9.45, set 4.45. Thermometer, +5° to −10°.

February 5, 1895.—North wind, very hard storm during the night, continuing in puffs all day, some snow; −4° to −8°.

February 6, 1895.—Strong west wind, overcast with a little snow;

−18° to −14°. The herders have long been very negligent in bringing wood for the schoolhouse, and long ago refused to make the fire and sweep the room.

February 7, 1895.—North-northwest wind; a genuine, full-fledged blizzard; the wind blowing a gale; snow flying so thick that you could not see 20 feet, and mercury −22° all day. No pupils and no school.

February 8, 1895.—North wind strong, but abating; −24° to −20°. Yesterday the herd split and only 20 deer remained around the tents, the rest had gone across Grantley Harbor and were found and brought back by natives from Nook. The watch had divided, two in each party, at 3 p. m., seeking in all directions but the right one; 8 pupils at evening school.

February 9, 1895.—Clear, bright, and calm; −26° to −20°. Stone was brought down from the hills for a fireplace in Charley's vacant house.

February 10, 1895.—North-northeast gale, the strongest wind since we came here; all doors and windows on the lee side blocked, the only egress being by the store door. Per came in through the storm and reported the herd gathered and not storming much where it is. Thermometer, −16° all day.

February 11, 1895.—Blizzard all day; −2° to −12°. Frederick was brought in from camp frost-bitten, having frozen his lip in some manner. Samuel is now alone with the deer.

February 12, 1895.—Calm, mild, snowing; +16° to +24°. Hauling and cutting wood and shoveling snow is now the daily routine. Per has lost his dog and is afraid it is caught in a trap, as it is his constant companion.

February 13, 1895.—Clear, calm, mild; +20° to +14°. The fireplace is ready in Charley's house. Mrs. Kjellmann hurt her ankle in sliding down the snowdrift; it is swollen.

February 14, 1895.—Strong north wind, clear; −10° to −4°. No valentines in circulation.

February 15, 1895.—Strong north wind. Aslak and Moses returned in the night; they had left one of their deer on the other side of the bay without making it fast. Moses wanted to tie it, but Aslak let it loose. They were sent back again to hunt for the "needle in the haystack" this morning. Another deer they had let loose near the station, and Aslak was told to find the deer or pay for them. Thermometer, 0° to −2°.

February 16, 1895.—Strong north wind, clear; −2° to −8°. Aslak and Moses returned in the night, minus the deer; no trace of it was found.

February 17, 1895.—Strong north wind, clear. The usual service and Sunday school; −6° stationary. Mrs. Kjellmann's foot is better.

February 18, 1895.—A furious gale from north, snow flying, clear; −18° to −14°; slight shock of earthquake was felt at 5 p. m.; the wind took a rest about 6 p. m.

February 19, 1895.—Medium north-northeast wind, clear; −16° to −14°. Mrs. Kjellmann's foot bad.

February 20, 1895.—The wind running all around the flag pole, and sometimes a calm. The Lapps were sent after moss to-day; −20° to −6°.

February 21, 1895.—Southeast wind, light, clear, and nice; +20° to +24°.

February 22, 1895.—Strong north-northeast wind, overcast. The flag was hoisted in honor of the Father of Our Country. About 8.30 Mr. George Johnson, from Unalakleet, with two interpreters, arrived, having made the trip from Charley's place since 8 a. m. They are on a missionary trip through this part of Alaska and will remain here some days. Aslak has found one of the missing deer. Thermometer, +12° to +3°.

February 23, 1895.—Strong north-northeast wind; snow drifting; −8° to 0°. Moss party returned.

February 24, 1895.—Storm from north-northeast, snowing and drifting. Johnson preached with the assistance of the interpreters. In the afternoon Taootuk was married to Nah zoo kah and tea was served to all the Eskimo herders. A sled arrived with letters from Mr. Lopp; −18° to −19°. Charley's brother and brother-in-law arrived about dark.

February 25, 1895.—Strong north-northeast wind. The Lapps hauled wood, and Ivanhoff, Johnson's interpreter, went with them on the trip. Thermometer, −20° to −16°.

February 26, 1895.—Light north wind, clear; −20° to −22°. Johnson left at 10.30 for Cape Prince of Wales, and Charley's brother and brother-in-law for Charley's place. Aslak, Martin, and Oowkitkoon went out in search of the missing deer. Taootuk, Wocksock, and Kummuk went up the coast to Kinnowgok, seal hunting.

February 27, 1895.—Clear, cold, calm; −24° to −15°. Aslak and others returned late last night, having tracked the deer to the top of the mountain toward Charley's place.

February 28, 1895.—Light north wind, overcast. A beautiful aurora borealis in the evening; −21° to 6°.

March 1, 1895.—Strong east wind in the night, becoming light during the day; clear in the forenoon, overcast in the afternoon. Wassock from Nook, was taken violently sick in the morning and was taken home. Johann, Moses, and Sekeoglook came down from the herd.

March 3, 1895.—Light south wind, changing to north. A light fall of snow. The usual Sunday service and school. Thermometer, +10° to +25°.

March 4, 1895.—Cloudy, with wind from northeast, east, southeast, and south. Kjellmann has finished his tent and camping outfit. Moses, Tatpan, Ahlook, and Johann went out to the herd. The village seems deserted; only two children from the village to-day. Thermometer, +25° all day.

March 5, 1895.—Rain during the night, in the forenoon sleet and snow; +25° to +33°. Ahlook returned, having lost the tent and slept on the mountains.

March 6, 1695.—East wind, veering to south and southwest; snow flying all day; cloudy; +10° to +25°.

March 7, 1895.—Southwest wind, cloudy and snowing; +25° all day. Ahlook left for the tent to-day.

March 8, 1895.—A clear, beautiful day, calm. A native reported having seen the lost deer. Thermometer, +10° to +26°.

March 9, 1895.—Calm; +12° to +22° to −2° at 8 p. m. At 9 p. m. the windy corner opened up and soon a gale was blowing from north-northeast. Kummuk returned during the night with two seals. Taootuk had shot three. Mr. Johnson returned about noon, having camped on the snow at the head of the lagoon. Also some traders came from the cape, and Tatpan, Martin and Oowkitkoon.

March 10, 1895.—North wind; −10° to −15°. Johnson preached in the village in the forenoon, and in the evening Norwegian services.

March 11, 1895.—Strong northeast wind, with snow flying. Thermometer, 0° to +18°. Kjellmann, Martin, and Mikkel left for Golovin Bay with deer to-day. Service in the evening.

March 12, 1895.—Wind shifting about, settling into a northeast gale during the night. Two services during the day. About noon the Cape Prince of Wales sleds and Lopp's herder left, with Moses in tow. Thermometer, +12° to +20°.

March 13, 1895.—Strong northeast wind, cloudy. Johnson did not leave on account of drifting snow; +10° to +18°.

March 14, 1895.—Light northeast wind, overcast; zero to +12°.

March 15, 1895.—Medium strong north wind, overcast. Johnson and company left at 8 a. m. Thermometer, +5° to +12°.

March 16, 1895.—Wind changing from northeast to southeast; north-northeast, settling at east, cloudy; +2° to +22°. The herd reported all well.

March 17, 1895.—Clear at times, wind continually changing; −10° to −15°. Sunday school in the afternoon.

March 18, 1895.—Clear, with north-northeast wind; −2° to −12°. Frederick was sent up to the herd, as his hip is now healed.

March 19, 1895.—North-northeast wind, clear; −3° to +4°. Charley arrived at 2.30 with letters from Johnson and Kjellmann. They left his place the 15th for Golovin Bay. One deer reported sick of a hurt foot. Mathis asked permission to kill it, but Per was ordered to go and look at it, and if it could be saved to try his best.

March 20, 1895.—Strong north-northeast wind, clear. The deer, a two-year-old gelding, was brought in, killed, and was dressed here and the meat put in the storehouse. The right front hip-joint was dislocated and matter had commenced to form around the joint. Thermometer, −11° to +2°.

March 21, 1895.—The windy corner wide open the entire twenty-four hours; −12° to −4°. Taootuk and Wocksock returned to-night from sealing, minus any seal. Mrs. Kjellmann had a sick headache all day.

March 22, 1895.—Strong north-northeast wind, clear; −21° to 10°.

March 23, 1895.—Medium strong northeast wind, clear, cold; −22° to −14°.

March 24, 1895.—Clear, light east wind; −19° to −8°. The usual Sunday school.

March 25, 1895.—Light southeast wind, clear and nice in forenoon, changing to northeast, and a storm was on the programme; −18° to −6°.

March 26, 1895.—Clear, with north-northeast wind during the night; calm in the forenoon; strong north to north-northeast wind in the evening; −10° to −2°.

March 27, 1895.—North wind, light, clear; −11° to −6°.

March 28, 1895.—Light north wind, clear; −17° to −10°. Per thinks the cows will come in from April 15 and on. Very strong north-northeast wind; some snow flying, clear. The deer which Aslak lost was reported killed by a native and consumed. Thermometer, −22° to −12°.

March 30, 1895.—Very strong northwest to north-northeast wind, overcast with snow flurries; −22° to −8°. Geetaugee was around hunting for four deerskins that had been stolen from him while he was out seal hunting. He suspects Nanugok (the thug) of stealing them. Geetaugee wants to enter a complaint against him when the revenue cutter comes.

March 31, 1895.—Overcast morning and evening, clear the middle of the day. Service and Sunday school. At 5 p. m. Kjellmann and Mikkel arrived with deer. They had left Charley's place at 8 a. m. and crossed the mountains. Martin is expected with a dog sled some time to-night. They left Golovin Bay on Monday noon. Thermometer, −12° to 0°.

April 1, 1895.—Overcast and calm. The man who shot the stray deer proved to be from Nook. He acknowledged the deed and on being told that he would either have to be put in irons or pay for the deer, promised to pay in fox skins before the *Bear* came. Two men had helped him eat it, and their names were taken and told to help pay for the meat. He threatened to commit suicide rather than be put in irons. Thermometer, −12° to zero.

April 2, 1895.—Northwest wind; partly overcast. The "Deerslayer" & Co. were in and each agreed to pay one white fox skin. A sled arrived from Golovin Bay bringing some letters from the States sent from Unalaska by way of St. Michaels. Thermometer, +12° to +4°.

April 3, 1895.—Calm, clear. A woman from the lakes came in with a two-months-old baby for treatment; it was covered with sores from poor care and filth. One of the best sled deer broke a foot to-day, getting entangled in the preceding sled, and had to be killed. Thermometer, −12° to +4°.

April 4, 1895.—Clear, calm; −12° to +4°. Martin was very sick with

rheumatic pains in the hip joint. Frederick was on the sick list from a boil on the knee caused by a neglected frost sore.

April 5, 1895.—Calm, clear; −4° to +10°. About 10 a. m. Aslak, Somby, wife and daughter, left for Charley's place to take care of his herd until June. Taooluk and wife left for down the coast to buy crabs. Two sleds arrived from the cape and one from the lakes.

April 6, 1895.—Variable winds, light, clear, and nice; zero to −14°. Nanugok came down from the cape last night, and had, according to hearsay, threatened to kill Geetaugee this morning. Nanugok was up at the station nearly all day and denied having taken the skins. He said he was going to leave in the morning, as the people were talking too much. After supper he went down to the village and was shot through the breast by Geetaugee and buried in a snow bank north-northeast from the village. There was no excitement in the village. The ladies at the station were somewhat excited over the affair; also the Laplanders.

April 7, 1895.—Sunday. Light southeast wind, clear and nice; −2° to +18°. Services with communion. Sunday school in the afternoon. Per, Sekeoglook, and Wocksock went up to the herd to-night to make preparations for moving the herd.

April 8, 1895.—Strong southeast wind, foggy in the morning, clearing up; −6° to −14°. Mathis, Samuel, Kummuk, and Ahlook left for the herd to-day with five weeks' provisions, as the herd is going up to the Goweerook River. Elektoona will take the provision sled back. Martin and Frederick are getting better.

April 9, 1895.—Clear, calm, bright. Several cape and lake sleds arrived. Moses came back from the cape with letters; −2° to +20°.

April 10, 1895.—Overcast, mild, and calm. Thorwald Kjellmann and Moses brought wood, as Johann's eyes were very bad.

April 11, 1895.—Overcast, calm. Johann's eyes are still bad. Three deer had broken loose from the fastening and shaped their course to the mountains. Koketuk, from the cape, arrived to-day. Thermometer, +8° to +28°.

April 12, 1895.—Strong north-northeast wind; storming. Service in the forenoon. Kummuk senior and his brother-in-law brought tidings from the stray deer, and with Moses were sent out to track them. Johann and Frederick took the rest of the deer and finally caught them near the last camping place. Moses turned back on the way. Thermometer, +4° to −10°.

April 13, 1895.—Strong north wind; snowstorm. Kotetuk left in the morning, and in the evening Netoxite, Mr. Lopp's herder, arrived to bring Brevig's family up on a visit. Zero all day.

April 14, 1895.—Easter Sunday; service and Sunday school. North wind, clear, with a little snow going south; −4° to +4°. Brevigs visited Kjellmanns and Kjellmanns visited the Brevigs.

April 15, 1895.—North wind; clear; −4° to +15°. Elektoona arrived

from the herd and reported all well with the herd; the herders all with sore eyes. Several sleds arrived from the cape and lakes, all wanting lead.

April 16, 1895.—North-northeast wind; snow on the move; −10° to −2°. Taootuk arrived during the night with news from Charley's herd. Brevigs left for the cape at 7 a. m.

April 17, 1895.—Calm, clear; +10° to +6°.

April 18, 1895.—Clear, calm in the forenoon; east wind in the afternoon; +8° to +10°.

April 19, 1895.—Calm, clear, bright; +8 to +15°.

April 20, 1895.—Calm, clear; +12° to +16°. Some Nook people complained that they had nothing to eat and were given some dry tomcod and oil.

April 21, 1895.—Calm and clear; light east wind, with snow in the evening. Oowkitkoon and Sekeoglook came down from the herd without any permission.

April 22, 1895.—Cloudy and calm; a little snow; +8° to +15°. Frank Komeroff, J. A. Dexter's Russian trader, arrived to-day with two dog sleds of barter goods.

April 23, 1895.—Storm from south, with snow and fog; +10° to +25°. Komeroff is doing a brisk trade.

April 24, 1895.—Strong south-southwest wind, with some snow; +20° to −28°.

April 25, 1895.—South-southwest wind in the morning and north wind in the afternoon, with some snow; +18° to +30°. Komeroff's Eskimo man is sick in bed.

April 26, 1895.—Clear and bright, calm; +20° to +28°.

April 27, 1895.—Brevigs returned at 11.30 p. m., having made the trip from the cape in seventeen hours. Cloudy and snowing, with a light northeast wind. Martin cut himself with his own knife. By falling down the knife penetrated the throat, cutting into the flesh quite deep. Thermometer, +25°.

April 28, 1895.—Clear and nice in the morning, with increasing wind from north-northeast, becoming very strong toward night. The usual Sunday service and school. Thermometer, +20° to +10°.

April 29, 1895.—Clear, with drifting snow and very strong north-northeast wind, abating toward night; +4° to +12°.

April 30, 1895.—Clear and bright, with a light north-northeast wind. Komeroff and party left for Golovin Bay, and a sled also left for the cape in the morning. Thermometer, +8° to +20°.

May 1, 1895.—Clear and bright, with a light northwest wind. Elektoona is sick with diarrhea. Thermometer, +12° to +28°.

May 2, 1895.—Clear, calm day; −12° to −30°. Mathis Eira arrived from the herd, having been one day and two nights on the way. He reported 65 fawns, of which one was stillborn and one was killed because it had a twin brother, and the mother would only care for one.

The third was killed in the herd by being kicked by another deer. The deer are thriving, and the pasturage is splendid. The herd are in a protected place where the winds can not blow. Two cape sleds and Charley arrived toward evening.

May 3, 1895.—Clear and bright, with a light south-southeast wind changing to east-northeast; +12° to +32°. Elektoona quite sick.

May 4, 1895. Clear and bright; south-southeast wind; +10° to +31°. Charley left at 9 a. m.

May 5, 1895.—Clear and bright, thawing in the sun; +15° to +35°; calm during the day; strong north-northeast wind after sunset. The usual Sunday school and service.

May 6, 1895.—Partly overcast, a strong wind during the night from the north; +15° to +35°; thawing a little. A sled arrived from Unalokleet. Mathis Eira left for the herd with provisions.

May 7, 1895.—Overcast, with occasional glimpses of the sun. The wind changing from northwest to north-northeast, southeast, back to northeast; +25° to +33°. Signs of thawing. Taootuk returned from seal hunting in the night with his wife, but minus all signs of seal. Elektoona went up to the herd with two weeks' provisions for the herd. Taootuk and Martin also went up to stay with the herd. Wocksock and Kummuk came home. Several sleds were on the move toward the sandpit with all their possessions.

May 8, 1895.—Clear and bright, with a light thaw; +20° to −36°. South wind, changing to northeast. The natives all seem to be on the move from Nook and the lakes. Kjellmann and the Lapps have been hauling timber for the schoolhouse.

May 9, 1895.—Clear and bright, with a chilly northeast wind; thawing a little in the sun in protected places; +22° to +30°. The Lapps received their provisions with joy.

May 10, 1895.—Clear and bright, with a light north-northeast wind. Mrs. Brevig celebrated her birthday by having a severe headache all day. The Nook "deer-slayer" brought tidings that he had seen two deer and a young fawn on the other side of the mountains south of the bay heading this way, and he, with Mikkel and Johann, were sent out with four deer to see if they could catch them and ascertain to which herd they belonged. Thermometr, + 22° to +29°.

May 11, 1895.—Overcast, with thick fog in the mountains; +18° to −31°. The Lapps and companion returned at 9.30 p. m., having followed the track of the deer all day, but never caught sight of them. A native reported that he had seen them pass northwest under the hills near the station one hour before the party returned.

May 12, 1895.—Clear and bright; thawing in the early afternoon; sharp, cutting north wind in the evening. The sighted deer were followed all day by the Lapps. Moses could not keep up and came home in the afternoon. The usual Sunday exercises. The herd was reported moved 10 miles nearer the station; 100 fawns, 4 dead. Thermometer, +20° to +35°. Letters arrived from Mr. Lopp.

May 13, 1895.—Clear, north wind. The stray deer were around the last camping place before Charley's herd left, and the deer had been tethered near by so that they should not scatter; but they had only circled around them, without coming near them, and turned northwest again, passing behind the hills. Thermometer, +25° to +26°.

May 14, 1895.—Clear and calm in the forenoon, with rising northeast wind in the evening; +14° to +33°. The deer have turned back again to the camping place and will be watched there until the herd returns.

May 15, 1895.—Clear and calm, +18° to +36°. The new schoolhouse was begun. Mikkel was out after the stray deer, without seeing them.

May 16, 1895.—Clear, with a very light northeast wind, growing stronger toward evening; +18° +35°. The deer were sighted behind the hills, but were very wild and could not be approached within half a mile.

May 17, 1895.—Partly overcast, with north-northeast wind during the night. Frederick, Kummuk, and Moses took a cook stove out to the proposed winter quarter for the herd, to be used for a herder's house. The natives have with one or two exceptions moved out of their huts, and are quartered on the beach or have moved to the sand-pit. School closed to-day. Oowkitkoon came with letters from the herd; all well. Thermometer, +19° to +31°.

May 18, 1895.—Overcast, with a chilly northeast wind; +18° to +30°. Trading sleds arrived from Cape Prince of Wales with letters from Mr. Lopp. Mrs. Kjellmann was sick from a headache.

May 19, 1895.—Overcast in the afternoon; mild and thawing; +23° to +40°. The usual Sunday service and school. The stray deer are yet behind the hills. Oowkitkoon started for the herd to-night.

May 20, 1895.—Cloudy and overcast, with south wind. Aslak Somby came back from Charley's about noon, and reported 77 fawns born, of which 2 were dead. He had been on the way since the 16th, having lost his way in the fog on the mountains. A fine, drizzling rain nearly all day; +42° all day; no frost in the morning.

May 21, 1895.—Clear, with a light southeast wind; +30° to +38°.

May 22, 1895.—Cloudy and raining part of the day; wind changing from southeast to north-northeast; —45°. Aslak and Frederick have been out looking for the stray deer, which are now moving toward the herd. Kjellmann made a few bricks to-day.

May 23, 1895.—Clear and bright until 6 p. m., when it clouded over and began to rain; strong north-northeast wind all day; +42°.

May 24, 1895.—Wind south and north; clear and mild; +51° at noon, thawing; colder at sunset, 10 p. m.

May 25, 1895.—Clear and calm, a very fine day; +50° at noon. Samuel and Taootuk came in from the herd and reported 132 calves born, 122 from old deer and 11 from young fawns. The herd is now near the foot of Grantley Harbor.

May 26, 1895.—Clear and calm in the forenoon; cloudy, with rising wind in the afternoon; northeast wind; +41° at noon, with a light

frost last night. The usual Sunday service and school. Aslak saw the stray deer near the first camping place in the fall.

May 27, 1895.—Clear, with a light northwest wind, veering to northeast; light frost last night; +30° to +42°. Johann, Frederick, Mikkel, and Wocksock went for logs again to-night. Kummuk returned to-night. The herd is now near the last camping place. Martin came in with Kummuk. A yearling cow brings forth a stillborn fawn. Light frost in the night.

May 28, 1895.—Strong northeast wind, clear and bright; +45°. Samuel, wife and child, and Martin went to the deer camp to-night.

May 29, 1895.—Clear, with a light north wind; −52°. Frederick, Mikkel, Johann and Aslak, Moses, and Kummuk went after logs late last night and are to make another trip again to-night.

May 30, 1895.—Clear, with a light north wind. The log cavalcade came home about 2 a. m. and left again at 4 a. m. Light frost; +52° at noon.

May 31, 1895.—Clear, calm; light frost in the night; +54° at noon. The log party returned to-night; they have brought some very nice logs. Salting seal blubber and drying the skins have been the order of the day for the Eskimo herders for two days.

June 1, 1895.—Overcast, with strong north-northeast wind. Early in the morning we got letters from Mr. Lopp. Per and Ah'look arrived from the herd. Per reported 131 fawns living and 13 dead, of which 9 were from the yearling cows.

June 2, 1895.—Clear and bright, with a strong north-northeast wind all night and day. Sunday services, but no Sunday school, as most of the herders were out. The toothache is making the station a much-felt call.

June 3, 1895.—Clear, with a light west wind; heavy frost last night. Per and Aslak went out to the herd; Frederick and Wocksock picked moss.

June 4, 1895.—Clear and bright, with a breath of wind from west. In the afternoon a cold, chilly fog came in from the northwest. A little cleaning up around the house was indulged in.

June 5, 1895.—Clear, bright, and calm. Toward night it clouded up from the south, with a little wind. Aslak came home with 7 deer, to be used in hauling logs.

June 6, 1895.—Overcast and calm, with a few drops of rain. Wocksock, Kummuk, Frederick, Aslak, and Thorwald Kjellmann went after logs. In the evening Jenny Kjellmann celebrated her sixth birthday by inviting her neighbors to supper.

June 7, 1895.—Cloudy, with showers all night and day; calm, and at times foggy. The log party returned at 9 a. m. Brevig and Thorwald Kjellmann went out for logs in the evening.

June 8, 1895.—Calm and foggy, rain and cloudy. The Alaska summer is here in all its abundance of rain and fog. Brevig and Kjellmann

returned at 7 a. m. with a log 36 feet long and 14 inches in diameter at the smallest end. Frederick, Aslak, Kummuk, and Wocksock went hunting at 4 p. m., followed by A. A. Kjellmann at 6 p. m.

June 9, 1895.—Calm and foggy. The sun showed his benign countenance once for six minutes and the rest of the day we basked in fog. The usual Sunday service and school. A boy from Kinnowgok reported two Russian men-of-war lying in the straits waiting for the ice to clear to come in here and take all the deer back to Siberia. Mathis reported one fawn born.

June 10, 1895.—Calm and foggy. Taootuk, Elektoona, and Ahlak went to the herd. Kjellmann went to Point Jackson to get some material for his boat. Mathis and Ahlak went to the old corral to plant turnips and rutabaga seed.

June 11, 1895.—Light west wind; overcast. Taootuk came home late last night very sick. Ahlook and Mathis came home to-day.

June 12, 1895.—Light west wind; cloudy, with thick fog on the hills. At 8.30 p. m. it snowed some. Thorwald Kjellmann has commenced a boat for his own use. Taootuk is a little better.

June 13, 1895.—Cloudy in the forenoon, with light west wind; clearing up at noon, with northerly wind; a light frost in the evening.

June 14, 1895.—Clear until 4 p. m., when it clouded over, with a light east wind. Frederick and Aslak were sent out looking for the two stray deer. Moses painted the little *Bear* (whaleboat).

June 15, 1895.—Overcast until 6 p. m., when a strong north-northeast wind commenced to blow. The flag halyard was put in order, and Moses smeared some paint on the roof of the house. Aslak and Frederick have not returned yet.

June 16, 1895.—Clear and calm, a beautiful day; a strong northeast wind all night. The usual service and Sunday school. The net was set in an open space near shore in hopes that there was fish in the ocean.

June 17, 1895.—Cloudy and overcast, with a light west wind, turning to south in the evening; fog at times. A general cleaning up was indulged in. The movement of the ice is watched with eager eyes. Per and Ahlook came in late from the herd.

June 18, 1895.—Strong west wind all night and day, with fog, snow, and sleet in the afternoon. The ice had been packed up on this shore during the night. Per, Ahlook, and Frederick went out to the herd. Berit, Johann's little daughter, is getting stiff in the arms and feet. The new boat was launched to-day.

June 19, 1895.—Clear in the forenoon; fog in the afternoon, with a chilly west wind.

June 20, 1895.—Clear in the morning, followed by a cold fog from the sea, with light northwest wind. Wocksock shot a seal outside the station. Mrs. Kjellmann is sick with a severe cold.

June 21, 1895.—Overcast in the morning, clearing up about noon.

Light west wind, becoming northeast and strong after 6 p. m., taking the ice from the shore. Kjellmann, Johann, Mikkel, and Mathis went out to Arkmore River to fish for trout.

June 22, 1895.—Clear and bright, with a light west wind in the afternoon; the sun set at 10.50 p. m. and appeared again at 1.50 a. m. (My watch must be twenty minutes fast.) Kjellmann and party returned at 7 this morning with considerable smelt. Martin, Elektoona, and Sekeoglook came in from the herd at 1 a. m. Grantley Harbor and the north half of the bay is now free from ice.

June 23, 1895.—Clear and nice in the early morning, with fog and light west-northwest wind all day. The ice is coming back in small cakes. No service, but Sunday school.

June 24, 1895.—Light west wind, with foggy weather; a clear spell in the afternoon. Frederick, Taootuk, Sekeoglook, Martin, and Elektoona went up to the herd in the canoe. Wocksock, Kummuk, and Sekeoglook each shot a seal to-night. The bay is filled with floating ice.

June 25, 1895.—Clear and calm, with very nice weather. Considerable codfish was caught last night and is being strung to-day. The ice is meandering around the bay with the tide.

June 26, 1895.—Clear and calm; a beautiful day, clouding in the evening. At 5 a. m. some natives came and reported "Umeakburk;" two steamers were nearing the anchorage. A sail was seen toward Kings Island, and during the day two more steamers arrived. Several barrels of tomcod were caught in one draw of the seine last night.

June 27, 1895.—Rain all night; cloudy, with west-southwest, south to southeast wind. At noon I took the whaleboat and five natives and went over to the ships and called on the whalers *Orca* and *Karluk*, arriving at the station at 1 a. m. (28th). I got some papers from the *Orca*.

June 28, 1895.—Cloudy, with a little rain; strong south to southwest wind. One steamer had anchored during the night. Samuel, Oowkitkoon, and Ahlook went out to the herd.

June 29, 1895.—Clear, cloudy, warm, cold, windy, calm, sunshine, foggy, and a little rain. Per and Martin came in from the herd. The natives are congregating on the beach again and preparing for the fishing season.

June 30, 1895.—Clear, with west-southwest wind, clouding over at sunset. The usual service and Sunday school. The steamer *Jeannie* arrived at the anchorage at 8 p. m. A boat's crew from the *Jeannette* is encamped on shore, fishing.

APPENDIX G.

METEOROLOGY AT TELLER REINDEER STATION.

Date.	Temperature.		Wind.		Remarks.
	A. M.	P. M.	Course.	Force.	
1894.	°	°			
Oct. 15	.....	20	.....	Calm	Clear, nice day.
16	19	23	E	Strong	Overcast.
17	23	42	E	Gentle	Clear, nice.
18	25	38	E	....do	Do.
19	26	40	N	Zephyr	Do.
20	22	29	.....	Calm	Cloudy, with snow flurries.
21	25	40	.....	....do	Clear.
22	19	33	.....	....do	Do.
23	10	30	.....	....do	Do.
24	12	26	.....	....do	Do.
25	10	22	SE. to SW	Medium	Cloudy, gloomy day.
26	10	20	NE	Light	Clear.
27	6	18	SE	....do	Cloudy, snow flurries.
28	8	16	W	Very light	Do.
29	0	2	.....	Calm	Clear and cold.
30	— 2	12	.....	....do	Partly overcast.
31	8	20	NE	Strong	Cloudy, snowing in afternoon.
Nov. 1	14	30	.....	Calm	Clear, very fine day.
2	0	8	E	Strong	Clear.
3	8	28	E	Light	Do.
4	0	8	E	Very light	Do.
5	— 2	2	E	Calm	Do.
6	— 2	2	.....	....do	Do.
7	10	20	NE	Light	Overcast.
8	10	22	N	Strong	Cloudy.
9	10	10	N	....do	A full-fledged snowstorm.
10	10	10	N	Gale	Snowstorm.
11	9	9	N	Strong	Cloudy.
12	10	16	NW	Light	Cloudy, snow flurries.
13	9	21	SW., W., NW	....do	Cloudy, some snow.
14	20	31	SW. to NW	....do	Do.
15	18	2	NE., E., SE	Strong	Clear.
16	0	0	NE	Gale	Clear, snow drifting.
17	—12	— 2	NE	Strong	Cloudy.
18	— 8	— 4	SE	Light	Clear.
19	— 8	22	SE., N	Light forenoon; strong afternoon.	Do.
20	—12	20	N	Strong	Clear, with cold mist in evening.
21	— 2	12	NW	Strong gale in the night.	Cloudy, snow flurries.
22	— 4	— 2	N	Medium	Clear.
23	—12	— 2	NE	Light	Cloudy.
24	18	22	SSE	Gale	Snowing.
25	28	24	SW., SE	Very strong	Clear morning, becoming cloudy.
26	22	26	SE	Strong	Cloudy.
27	0	0	Continually changing		Clear.
28	0	0	E	Strong	Cloudy, snow flurries.
29	18	26	NE	....do	Clear.
30	15	25	.....	Calm	Cloudy.
Dec. 1	14	22	E	Light	Cloudy, some snow.
2	12	2	N	Strong	Partly overcast.
3	4	10	NW	....do	Raw mist.
4	— 6	—11	NW	....do	Cold, blustering day
5	— 8	—12	NW	....do	Cloudy.
6	— 9	—18	.....	Calm	Clear, cold.
7	—22	—21	.....	....do	Do.
8	—23	—18	.....	....do	Do.
9	—26	—17	.....	....do	Do.
10	—20	—17	.....	....do	Do.
11	—14	—21	.....	....do	Do.
12	—14	—20	NW	Light	Do.
13	—13	—18	.....	Calm	Clear, hazy.
14	—14	—25	N	Light forenoon; gale afternoon.	Clear, snow flying in afternoon.

METEOROLOGY AT TELLER REINDEER STATION—Continued.

Date.	Temperature.		Wind.		Remarks.
	A. M.	P. M.	Course.	Force.	
1894.	°	°			
Dec. 15	—20	—20	E	Light	Clear.
16	—14	2	E	Gale	Snowing and drifting in afternoon.
17	— 8	—14	W	Medium	Clear.
18	—14	—18		Calm	Do.
19	—14	30	NE., S.	Very strong	Stormy, snowing in the evening.
20	+22	18	SW	Light	A nice day, with a little snow in the evening.
21	18	— 2		Calm	Clear and pleasant; sun rose 11.40 a. m., set 2.50 p. m.
22	— 6	10	SE	Light	Cloudy.
23			SW., NE., SE	do	Cloudy, with some snow.
24	26	30	NE	Very light	Clear and pleasant.
25	30	31	S., SW	Gale in evening	Cloudy, with rain and sleet in evening
26	10	21	NE	In gusts	Cloudy, with snow flying.
27	20	28	NE	Very strong	Cloudy, with sleet.
28	24	30	NE	do	Cloudy, snow in evening.
29	—19	—23		Calm	Cloudy and raw, clearing up after dark.
30	10	14		do	Clear, nice, and pleasant.
31	2	4		do	Clear, very nice.
1895.					
Jan. 1	— 2	10		do	Clear, bright, and sunny.
2	— 4	2		do	Do.
3	— 6	4	NE	Light	Do.
4	9	16		Calm	Foggy.
5	— 5	8		do	Clear.
6	— 2	8		do	Foggy.
7	—11	— 2		do	Clear.
8	— 9	2		do	Foggy.
9	— 3	0	NNE	Medium	Clear.
10	—15	3	N	do	Clear afternoon, overcast forenoon.
11	—17	—22	N	Strong	Partly overcast.
12	—23	—29	NW	do	Stormy.
13	—24	—30	NW	do	Clearing after dark.
14	—31	—33	NE., E., SE	Light	Clear.
15	—15	—15	SE	do	Cloudy.
16	— 6	0		Calm	Cloudy, with snow flurries; two hours sunshine.
17	— 9	—19		do	Clear.
18	—19	—16	SE	Light	Do.
19	—18	—14	SE	do	Cloudy.
20	10	14	SE	Strong	Cloudy, some snow.
21	22	28	SE	Gale	Snow and sleet.
22	14	26		Calm	Overcast, clearing toward dark.
23	0	4		do	Clear.
24	4	— 3	N	Calm forenoon; strong afternoon.	Do.
25	— 2	6	NNE	Strong	Do.
26	10	15	NNE	Gale	Snow falling and flying.
27	16	22	NNE	Very strong	Blizzard.
28	4	4	NNE	do	Stormy and drifting.
29	4	0	NNE	do	Do.
30	— 5	— 2	NNE	do	Do.
Feb. 1	— 4	—10	NNE	do	Snow drifting.
2	— 4	2	NNE	do	Do.
3	5	—10		Calm	Clear and bright.
4	— 3	2	NNE	Strong	Partly overcast.
5	— 4	—10	N	do	Do.
6	—18	—14	N	do	Stormy and overcast.
7	—22	—23	NNW	Gale	Blizzard.
8	—24	—20	N	Strong	Snow flying some.
9	—26	—20		Calm	Clear and bright.
10	—16	—18	NNE	Gale	South side of house entirely blockaded.
11	— 2	12	NNE	Very strong	Snow flying.
12	—24	16		Calm	Overcast.
13	20	14		do	Clear, very nice day.
14	—10	4	N	Strong	Clear.
15	0	— 2	N	do	Snow flying.
16	— 2	— 8	NNE	do	Clear, with a little snow flying.
17	— 6	— 8	N	Very strong	Clear.
18	—18	—14	N	Gale	Cloudy. A shock of earthquake at 5 p. m.
19	—16	—14	NNE	Calm	Clear.
20	—20	— 6	NNE., ESE	Light	Do.
21	20	24	SE	do	Do.
22	12	3	NNE	Strong	Cloudy, with snow flying.
23	— 8	0	NNE	do	Snow flying.

METEOROLOGY AT TELLER REINDEER STATION—Continued.

Date.	Temperature.		Wind.		Remarks.
	A. M.	P. M.	Course.	Force.	
1895.	°	°			
Feb. 24	—18	—19	NNE	Strong	Snow drifting.
25	—20	—16	NNE	do	Clear.
26	—20	—22	N	Light	Do.
27	—24	—15		Calm	Do.
28	—21	— 6	N	Light	Overcast.
Mar. 1	—14	20	E	Strong	Do.
2	22	33	E	do	Clear forenoon.
3	10	25		do	
4	25	25	S., N.	Medium	Clear part of the day, some snow.
5	25	33	SE. to S.	do	Rain in the night, snow and sleet today.
6	10	25	E., SE., SW	do	Cloudy.
7	25	25	SSW	do	Cloudy, some snow.
8	10	26		Calm	Clear, very pleasant.
9	12	22	NNE	Very strong	Clear and nice.
10	—10	—15	N	do	Stormy.
11	0	18	NE	Strong	A little snow.
12	10	18	NE	Gale	Snow flying.
13	12	20	NE	Strong	Overcast.
14	5	12	N	Medium	Overcast, snow drifting.
15	0	12	NE	do	Partly overcast.
16	2	22	NE., ESE., N., NEE.	At times strong	Cloudy.
17	—10	—15	Changing	At times calm	Partly overcast.
18	—20	—12	NNE	Medium	Strong.
19	— 3	4	NNE	do	Clear.
20	—11	2	NNE	Strong	Do.
21	—12	— 4	NNE	Very strong	Do.
22	—21	10	NNE	Strong	Do.
23	—22	—14	NNE	Very strong	Do.
24	—19	— 8	E	Very light	Do.
25	—18	— 6	SE, NE	Light forenoon; strong evening.	Stormy toward night.
26	—10	— 2	NNE	Strong	Clear.
27	—11	— 6	NNE	Medium	Do.
28	—17	—10	N	Light	Do.
29	—22	—12	NNE	Very strong	Clear, snow flying.
30	—22	— 8	NW., NNE	do	Overcast, snow flurries.
31	—12	0	NNE	Medium	Clear in the middle of the day.
Apr. 1	—12	0		Calm	Overcast morning and evening.
2	—12	— 4	NW	Medium	Partly overcast.
3	—12	4	N	Light	Clear.
4	—12	4	Changing	do	Do.
5	— 4	10		Calm	Do.
6	0	4	SE	Light	Very fine.
7	— 2	18	SE., E	do	Clear, cloudy in evening.
8	—16	—14	SE	Strong	Foggy, clearing and nice.
9	— 2	20		Calm	Clear and bright.
10	6	25		do	Snow falling and overcast.
11	8	28		do	Overcast.
12	4	10	NNE	Strong	Stormy, some snow.
13	0	0	N	do	Snow dancing.
14	— 4	4	N	Medium	Snow going south.
15	— 4	15	N	do	Clear.
16	—10	2	NNE	do	Snow flying.
17	10	16		Calm	Clear.
18	8	10	E. in afternoon	Medium	Do.
19	8	15		Calm	Do.
20	12	16		do	Do.
21	8	20	E	Very light	Calm forenoon.
22	8	15		Calm	A little snow.
23	10	25	S	Strong	Snowstorm.
24	20	28	SSW	do	Storm, snow, and fog.
25	18	30	SSW., N	do	Some snow.
26	18	30		Calm	Clear.
27	25	25	NE	Light	Cloudy, with some snow.
28	20	10	NNE	do	Clear in morning.
29	4	12	NNE	Gale	Snow flying.
30	8	20	NNE	Light	Clear and bright.
May 1	12	28	NW	do	Do.
2	12	30		Calm	Clear.
3	10	31	SSE	Light	Do.
4	12	32	SSE., ENE	do	Do.
5	15	35	NNE	Strong	Do.
6	15	35	NNE., N	do	Partly overcast.
7	20	33	NNW., NNE	Medium	Overcast.
8	20	36	S., NE	Light	Clear.
9	20	30	NE	do	Do.

METEOROLOGY AT TELLER REINDEER STATION—Continued.

Date.	Temperature.		Wind.		Remarks.
	A. M.	P. M.	Course.	Force.	
1895.	°	°			
May 10	22	29	NNE	Light	Clear.
11	18	31		Calm	Overcast, fog in mountains.
12	20	35	N	Strong	Clear, some snow flying.
13	25	36	N	Light, rising	Clear.
14	14	33	NE	Rising	Calm forenoon, clear.
15	18	36		Calm	Clear.
16	18	35		do	Do.
17	19	31	NNE	Medium	Overcast part of the day.
18	18	30	NNE	do	Overcast.
19	23	40		Calm	Do.
20	42	42	S	Light	Cloudy.
21	34	40	SE., NNE	do	Rain part of the day.
22	45	45	SE	do	Cloudy.
23	45	45	SE	do	Do.
24	-------	51	S., N	do	Clear.
25	-------	50		Calm	Do.
26	-------	41	N. in evening	do	Cloudy night.
27	30	42	NW	Light	Clear.
28	-------	45	NE	Strong	Do.
29	-------	52	N	Light	Do.
30	-------	52	N	Very light	Do.
31	-------	54		Calm	Do.

APPENDIX H.

ACTION OF THE NATIONAL EDUCATION ASSOCIATION.

The National Education Association (representing the 400,000 public school teachers of the United States), in session at Denver, Colo., July 9 to 12, 1895, passed the following resolution:

Resolved, That we heartily approve the efforts to educate Alaskans, and especially in the care and use of reindeer as an industry and as a means of saving them from starvation and affording them food, raiment, shelter, and transportation; and that we believe Congress should extend to Alaska aid in settling the questions of productive industry by experiment stations, as it now aids in the other Territories and and in the several States by its appropriations for agricultural stations.

ACTION OF THE LAKE MOHONK CONFERENCE.

At the thirteenth annual meeting of the Lake Mohonk Conference, October 9 to 11, 1895, the following action was taken:

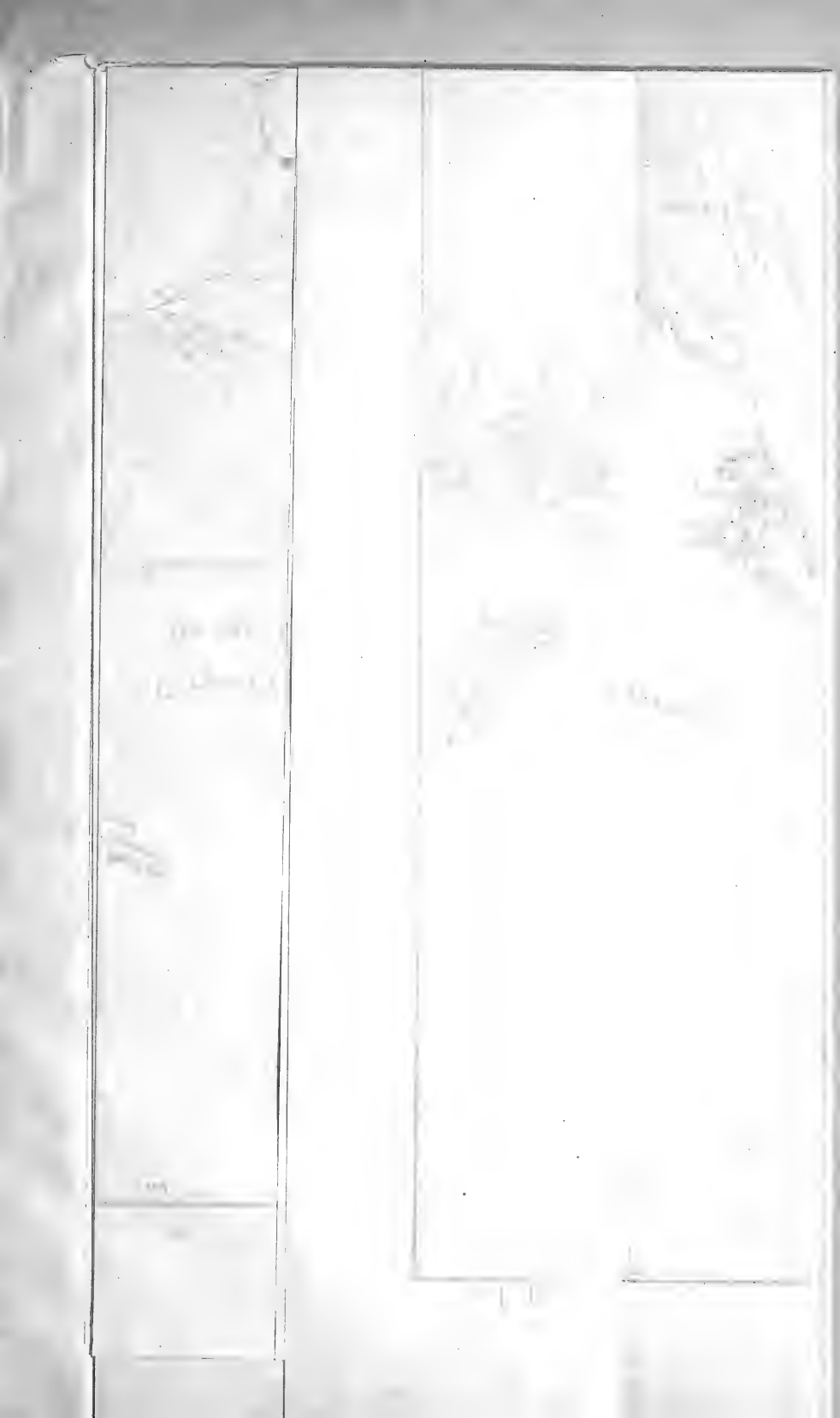
We note with satisfaction that the experiment of introducing reindeer into Alaska has proved a marked success. But the supply of reindeer is as yet totally inadequate for the needs of the natives. The sum hitherto appropriated has been but $7,500 a year, sufficient only to purchase 150 reindeer and pay the expenses of the herders. We therefore earnestly second the request of Commissioner Harris that the appropriation be increased and that Congress set aside for this coming year for the purchase and maintenance of reindeer the sum of $20,000.

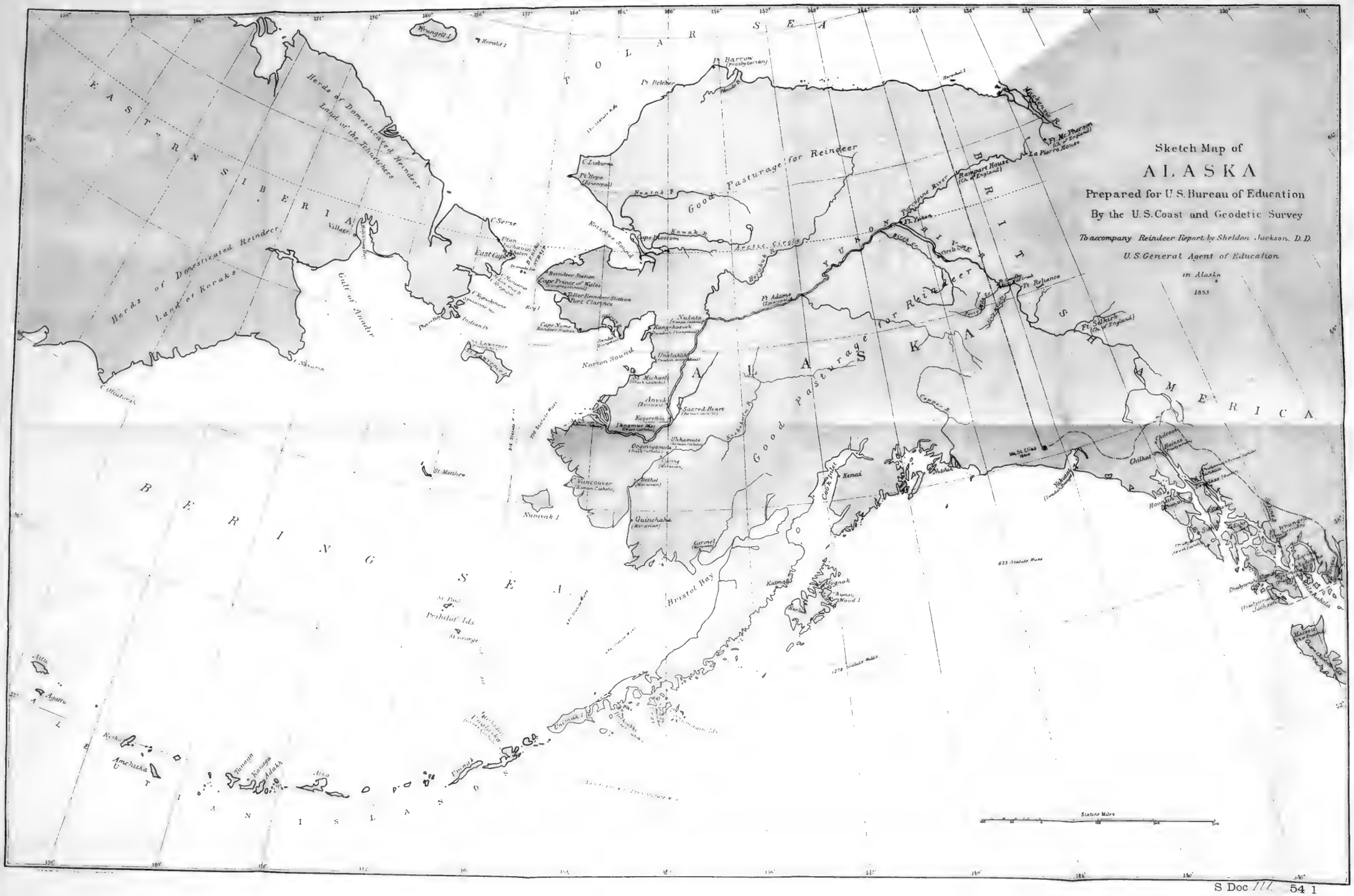
Resolved, That we specially commend the work of the field matrons as productive of the best good of the Indian communities, through the instruction and elevation of the Indian women, and in that respect particularly necessary. We urge substantial additions to the appropriation for their support and that their number may be largely increased.

ACTION OF THE BOARD OF INDIAN COMMISSIONERS.

The following resolution was adopted at the conference of the Board of Indian Commissioners and the friends of the Indians in session at Washington, D. C., January 15, 1896:

Resolved, That this conference most earnestly urges upon Congress larger appropriations for education in Alaska and for the more rapid introduction of domestic reindeer in that region.




Sketch Map of
ALASKA
Prepared for U.S. Bureau of Education
By the U.S. Coast and Geodetic Survey
To accompany Reindeer Report by Sheldon Jackson, D.D.
U.S. General Agent of Education
in Alaska
1893
POLAR SEA
EASTERN SIBERIA
Herds of Domesticated Reindeer
Land of the Tchuctchees
Herds of Domesticated Reindeer
Land of Koraks
Gulf of Anadir
BERING SEA
ALEUTIAN ISLANDS
ALASKA
BRITISH AMERICA
YUKON RIVER
Good Pasturage for Reindeer
Good Pasturage for Reindeer
Norton Sound
Bristol Bay
Cape Prince of Wales
Cape Nome
Cape Blossom
Cape Lisburne
Pt Barrow
Pt Belcher
Pt Hope
Pt Rampart House
Ft Yukon
Ft Adams
Ft Reliance
Ft Selkirk
Ft Mc Pherson
La Pierre House
Mackenzie R.
Porcupine River
Arctic Circle
Kotzebue Sound
Kowak R.
Noatak R.
Nulato
Kang-kosook
Unalaklik
St Michael
Anvik
Sacred Heart
Ikogmut Mts
Uhhamuto
Oogovigamuta
Bethel
Quinehaha
Carmel
Kenai
Cook Inlet
Katmai
Kyak
Wood I
Unimak I
Umnak
Kanaga
Adakh
Amchitka
Kyska
Attu
Agattu
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